Social Media Apps Programming

Facebook API
(Facebook JavaScript SDK)
(Integrate Facebook with iOS/Android Apps)

Min-Yuh Day, Ph.D.
Assistant Professor
Department of Information Management
Tamkang University

http://mail.tku.edu.tw/myday

2014-12-24
## Course Schedule (1/3)

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Subject/Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2014/09/17</td>
<td>Course Orientation and Introduction to Social Media and Mobile Apps Programming</td>
</tr>
<tr>
<td>2</td>
<td>2014/09/24</td>
<td>Introduction to Android / iOS Apps Programming</td>
</tr>
<tr>
<td>3</td>
<td>2014/10/01</td>
<td>Developing Android Native Apps with Java (Eclipse) (MIT App Inventor)</td>
</tr>
<tr>
<td>4</td>
<td>2014/10/08</td>
<td>Developing iPhone / iPad Native Apps with Swift / Objective-C (XCode)</td>
</tr>
<tr>
<td>5</td>
<td>2014/10/15</td>
<td>Mobile Apps Using HTML5/CSS3/JavaScript</td>
</tr>
<tr>
<td>6</td>
<td>2014/10/22</td>
<td>jQuery Mobile</td>
</tr>
</tbody>
</table>
## Course Schedule (2/3)

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Subject/Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>2014/10/29</td>
<td>Create Hybrid Apps with Phonegap</td>
</tr>
<tr>
<td>8</td>
<td>2014/11/05</td>
<td>jQuery Mobile/Phonegap</td>
</tr>
<tr>
<td>9</td>
<td>2014/11/12</td>
<td>jQuery Mobile/Phonegap</td>
</tr>
<tr>
<td>10</td>
<td>2014/11/19</td>
<td>Midterm Exam Week (Midterm Project Report)</td>
</tr>
<tr>
<td>11</td>
<td>2014/11/26</td>
<td>Case Study on Social Media Apps Programming and Marketing in Google Play and App Store</td>
</tr>
<tr>
<td>12</td>
<td>2014/12/03</td>
<td>Google Cloud Platform</td>
</tr>
<tr>
<td>Week</td>
<td>Date</td>
<td>Subject/Topics</td>
</tr>
<tr>
<td>------</td>
<td>------------</td>
<td>-------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>13</td>
<td>2014/12/10</td>
<td>Invited Talk: Social, Data and Business Model - Let’s see PIXNET</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[Invited Speaker: Dr. Rick Cheng-Yu Lu, Technical Director, PIXNET]</td>
</tr>
<tr>
<td>14</td>
<td>2014/12/17</td>
<td>Google App Engine and Google Maps API</td>
</tr>
<tr>
<td>15</td>
<td>2014/12/24</td>
<td>Facebook API (Facebook JavaScript SDK) (Integrate Facebook with iOS/Android Apps)</td>
</tr>
<tr>
<td>16</td>
<td>2014/01/31</td>
<td>Twitter API</td>
</tr>
<tr>
<td>17</td>
<td>2015/01/07</td>
<td>Final Project Presentation</td>
</tr>
<tr>
<td>18</td>
<td>2015/01/14</td>
<td>Final Exam Week (Final Project Report)</td>
</tr>
</tbody>
</table>
Outline

• Facebook API
  – Facebook JavaScript SDK
  – Integrate Facebook with iOS/Android Apps
  – Facebook Login
  – Facebook Open Graph API
  – Facebook Graph API

iOS
Integrate Facebook with your native iOS apps.

Android
Integrate Facebook with your native Android apps.

Web
Integrate Facebook with your website or host your apps in Facebook.com.
Facebook Graph API v2.x and the new Facebook Login

Graph API v2.x and the new Facebook Login

Upgrade your apps before December 25 to protect 90% of your users’ experiences

Learn More

https://developers.facebook.com/
Facebook Platform Upgrade Guide

This guide helps you upgrade your apps across versions. For a list of the changes in each platform release, please see our platform changelog.

Prevent Broken Experiences in Your Mobile Apps - We Recommend Upgrading to v2.0+ Before December 25th

Did you know it usually takes 80-140 days for 90% of people to upgrade to the latest version of your app?

All Facebook-enabled apps will be automatically upgraded to API version 2.0 on April 30th, 2015. If you want to get most of the people using your app upgraded to the latest version, you will need apps in app stores before December 25th.

Learn More...

Upgrading to Graph API v2.x & the new Facebook Login

https://developers.facebook.com/docs/apps/upgrading/
Facebook Developers

Facebook SDK for Unity
Simple cross-platform development. Immersive full-screen game experience.

Download the SDK or Learn More

iOS
Integrate Facebook with your native iOS apps.

Android
Integrate Facebook with your native Android apps.

Web
Integrate Facebook with your website or host your apps in Facebook.com.

Latest Updates
- Platform Status: Facebook Platform is Healthy
- Introducing App Center Videos
  December 20 by Niket Biswas
- Platform Updates: New Unity SDK Case Study and Updated iOS Developer Center
  December 19 by Brian Jaw

Object API
Object API
Create Open Graph Objects
Easily integrate Open Graph objects into your apps. Works on mobile and web – no web server needed! Learn more

Showcase
See how companies make their sites personalized and social with Facebook

https://developers.facebook.com/
Integrate Facebook with your native iOS apps

https://developers.facebook.com/
Facebook SDK for iOS

Integrate with Facebook to help you build engaging social apps and get more installs.

Download the SDK

v3.11. See Change Log or Upgrade Guide.

Get Started on iOS
Walkthrough the basics for iOS

SDK Reference Docs
Comprehensive Reference Docs

What is in the iOS SDK?
Integrate Facebook with your native Android apps.

https://developers.facebook.com/
Facebook SDK for Android

Integrate with Facebook to help you build engaging social apps and get more installs.

Download the SDK


Get Started
Quick and basic guide for Android

SDK Reference Docs
Reference Docs and sample code
Integrate Facebook with your Web Apps

Web

Integrate Facebook with your website or host your apps in Facebook.com.
Facebook for Web Developers

Facebook for Web Developers
Drive traffic and engagement for your desktop and mobile web apps.

Getting Started

Integrating your website or web app with Facebook makes it more social. From simple features such as the Like button and other social plugins, to powerful engaging stories with Open Graph and real identity through Facebook Login, the Facebook platform provides the tools you need to get people to your website and keep them coming back.

https://developers.facebook.com/docs/web/
Facebook for Web Developers

Getting Started

Integrating your website or web app with Facebook makes it more social. From simple features such as the Like button and other social plugins, to powerful engaging stories with Open Graph and real identity through Facebook Login, the Facebook platform provides the tools you need to get people to your website and keep them coming back.

Facebook for Websites

The Facebook platform enables you to make your website more social. With plugins that let you easily add social features to your website, and dialogs you can use to let your users share your content, you'll be able to start using the features of the Facebook platform in minutes. By using Facebook Login to sign in users with their real identities, calling the Graph API and using Open Graph to tell stories, your users will be more engaged and more likely to return.

Facebook for Mobile Web Apps

By leveraging the features of the Facebook platform, you can build mobile web apps that are more powerful and more personal. Whether you're building a responsive web app that works on both desktop and mobile, or a mobile-specific web app, you'll find features of the Facebook platform that will add help you get and retain users.

SDKs for the web

JavaScript

The Facebook SDK for JavaScript provides a rich set of client-side functionality, including Facebook Login, API access and social plugins.

PHP

The Facebook SDK for PHP provides a rich set of server-side functionality for accessing Facebook's server-side API calls.

More SDKs

Find the SDK to suit the platform you build on, with the full range of SDKs provided by both Facebook and the community.

https://developers.facebook.com/docs/web/
Facebook for Web Developers

SDKs for the web

JavaScript

The Facebook SDK for JavaScript provides a rich set of client-side functionality, including Facebook Login, API access, and social plugins.

- Getting Started
- Guides and Reference

PHP

The Facebook SDK for PHP provides a rich set of server-side functionality for accessing Facebook's server-side API calls.

- Getting Started
- Guides and Reference

More SDKs

Find the SDK to suit the platform you build on, with the full range of SDKs provided by both Facebook and the community.

- Ruby
- Node.js
- C#

JavaScript SDK Guides

Using the JavaScript SDK with jQuery

In this tutorial, you'll learn how to incorporate the JavaScript SDK into your jQuery-based web app. Both jQuery and the JavaScript SDK provide their own solutions for deferring code execution until the libraries have loaded, and this tutorial will help you combine the two and ensure both are ready to use before you invoke the SDK.

Using the JavaScript SDK with RequireJS

In this tutorial, you'll learn how to incorporate the JavaScript SDK with other JavaScript modules using RequireJS. Ordinarily, the JavaScript SDK isn't compatible with the Asynchronous Module Definition (AMD) design pattern, so this tutorial covers writing a shim to provide the FB object created by the SDK.

https://developers.facebook.com/docs/web/
Facebook for Web Developers

Getting Started for Websites

Web › Getting Started for Websites

The Facebook platform enables you to make your website more social. With plugins that let you easily add social features to your website, and dialogs you can use to let your users share your content, you'll be able to start using the features of the Facebook platform in minutes. By using Facebook Login to sign in users with their real identities, calling the Graph API and using Open Graph to tell stories, your users will be more engaged and more likely to return.

This guide walks you through the features available to you, to help you choose the level of integration that's right for you.

Looking for advice on adding Facebook to your mobile web app? Take a look at Getting Started With Facebook For Mobile Web Apps

In this guide:

- Adding social features with Plugins
- Sharing content back to Facebook
- Your website as an app on Facebook
- Making your content look good on Facebook
- Getting to know your users
- Telling stories with your content
- Measuring your success

https://developers.facebook.com/docs/web/gettingstarted/
Adding social features with Plugins

Like Button

Comments Box

https://developers.facebook.com/docs/web/gettingstarted/
The new Facebook Login

The fast, convenient way for people to log into your app while giving them control over what they share. Learn More

https://developers.facebook.com/docs/facebook-login/v2.2
The new Facebook Login (April 30, 2015)

https://developers.facebook.com/docs/facebook-login/v2.2
Facebook Login

A secure and easy way for people to log in to your app or website.

- **Login for iOS**
  Add Login to your iOS app.

- **Login for Android**
  Add Login to your Android app.

- **Login for JavaScript**
  Add Login in your website or web app.

**Getting Started**

**Overview**

**Other Login Flows**

Manually Build a Login Flow

https://developers.facebook.com/docs/facebook-login/
Login for JavaScript

Facebook apps can use one of several login flows, depending on the target device and the project. This guide takes you through the login flow for web apps — apps that are accessed through a browser.

The easiest and quickest way to implement Facebook Login for web is with the Facebook SDK for JavaScript. This guide will take you through each step of the web login flow and show you how to implement each of them.

You might also need to implement browser-based login without using our SDKs or a login flow using only server-side code, if so we have a separate guide to follow.

- Quickstart
- Checking login status
- Logging people in
- Confirming identity
- Storing access tokens and login status
- Logging people out

Quickstart

Later in this doc we will guide you through the login flow step-by-step and explain each step clearly – this will help you if you are trying to integrate Facebook Login into an existing login system, or just to integrate it with any server-side code you’re running. Before we do that, here we’ll really quickly show you the absolute basic block of code that you could use to start building an app using Facebook Login with the JavaScript SDK.

You will need a Facebook App ID before you start using the SDK, which you can create and retrieve on the App Dashboard.
Facebook Login for JavaScript

```html
<html>
<head></head>
<body>
<div id="fb-root"></div>
<script>
window.fbAsyncInit = function() {
FB.init(
    appId : '{your-app-id}',
    status : true, // check login status
    cookie : true, // enable cookies to allow the server to access the session
    xfbml : true // parse XFBML
);

// Here we subscribe to the auth.authResponseChange JavaScript event. This event is fired
// for any authentication related change, such as login, logout or session refresh. This means
// whenever someone who was previously logged out tries to log in again, the correct case below
// will be handled.
FB.Event.subscribe('auth.authResponseChange', function(response) {
    // Here we specify what we do with the response anytime this event occurs.
    if (response.status == 'connected') {
        // The response object is returned with a status field that lets the app know the current
        // login status of the person. In this case, we're handling the situation where they
        // have logged in to the app.
        testAPI();
    } else if (response.status == 'not_authorized') {
        // In this case, the person is logged into Facebook, but not into the app, so we call
        // FB.login() to prompt them to do so.
        // In real-life usage, you wouldn't want to immediately prompt someone to login
        // like this, for two reasons:
        // (1) JavaScript created popup windows are blocked by most browsers unless they
    }
</script>
</body>
</html>
```

https://developers.facebook.com/docs/facebook-login/login-flow-for-web/
Facebook Login for JavaScript

```html
<html>
<head></head>
<body>
<div id="fb-root"></div>
<script>
window.fbAsyncInit = function() {
FB.init({
  appId: '{your-app-id}',
  status: true, // check login status
  cookie: true, // enable cookies to allow the server to access the session
  xfbml: true // parse XFBML
});
</script>
</body>
</html>
```

https://developers.facebook.com/docs/facebook-login/login-flow-for-web/
// Here we subscribe to the auth.authResponseChange JavaScript event. This event is fired
// for any authentication related change, such as login, logout or session refresh. This means
// whenever someone who was previously logged out tries to log in again, the correct case below
// will be handled.
FB.Event.subscribe('auth.authResponseChange', function(response) {
    // Here we specify what we do with the response anytime this event occurs.
    if (response.status === 'connected') {
        // The response object is returned with a status field that lets the app know the current
        // login status of the person. In this case, we're handling the situation where they
        // have logged in to the app.
        testAPI();
    } else if (response.status === 'not_authorized') {
        // In this case, the person is logged into Facebook, but not into the app, so we call
        // FB.login() to prompt them to do so.
        // In real-life usage, you wouldn't want to immediately prompt someone to login
        // like this, for two reasons:
        // (1) JavaScript created popup windows are blocked by most browsers unless they
        // result from direct interaction from people using the app (such as a mouse click)
        // (2) it is a bad experience to be continually prompted to login upon page load.
        FB.login();
    } else {
        // In this case, the person is not logged into Facebook, so we call the login()
        // function to prompt them to do so. Note that at this stage there is no indication
        // of whether they are logged into the app. If they aren't then they'll see the Login
        // dialog right after they log in to Facebook.
        // The same caveats as above apply to the FB.login() call here.
        FB.login();
    }
});
Facebook Login for JavaScript

// Load the SDK asynchronously
(function(d){
    var js, id = 'facebook-jssdk', ref = d.getElementsByTagName('script')[0];
    if (d.getElementById(id)) {return;}
    js = d.createElement('script'); js.id = id; js.async = true;
    js.src = '//connect.facebook.net/en_US/all.js';
    ref.parentNode.insertBefore(js, ref);
})(document));

// Here we run a very simple test of the Graph API after login is successful.
// This testAPI() function is only called in those cases.
function testAPI() {
    console.log('Welcome! Fetching your information....');
    FB.api('/me', function(response) {
        console.log('Good to see you, ' + response.name + '.');
    });
}

<!--
Below we include the Login Button social plugin. This button uses the JavaScript SDK to present a graphical Login button that triggers the FB.login() function when clicked. -->

<fb:login-button show-faces="true" width="200" max-rows="1"></fb:login-button>
</body>
</html>

https://developers.facebook.com/docs/facebook-login/login-flow-for-web/
Facebook Login for JavaScript

https://developers.facebook.com/docs/facebook-login/login-flow-for-web/
Demo: Facebook Apps
Create New App
Facebook Apps: Create New App

Welcome to the App Dashboard.
Create an app to start integrating with Facebook or jump into the docs.

Websites
Using Facebook on your Website allows you to create a more personalized, social experience using Social Plugins such as the Like Button and simplifies your registration and sign-in process using Login Button and Registration Plugin.

Apps on Facebook
Building an app on Facebook gives you the opportunity to deeply integrate into our core user experience. Use native Facebook functionality such as Requests and Bookmarks to create an ideal social space for your users.

Mobile Apps
Facebook Platform makes iOS (iPhone & iPad), Android and Mobile Web apps social. Use Single Sign-On to access the user's social graph (without yet another username/password) and create a personalized experience.

https://developers.facebook.com/apps
Facebook Apps: Create New App

https://developers.facebook.com/apps
Facebook Apps: Create New App

https://developers.facebook.com/apps
Facebook Apps: Create New App

https://developers.facebook.com/apps
Facebook Apps: Create New App

iMyday
App ID: 1378880249017680
App Secret: c64d6b231b7c22003b8ddc25a99e20ec(reset)
### Facebook Apps: Create New App

**Select how your app integrates with Facebook**

- **Website with Facebook Login**
  - Site URL: [http://mail.tku.edu.tw/tday/app/facebook.html](http://mail.tku.edu.tw/tday/app/facebook.html)

- **Mobile Web**
  - Mobile Site URL: [http://mail.tku.edu.tw/tday/app](http://mail.tku.edu.tw/tday/app)

- **Accept Mobile Web Payments**: [Enabled](https://developers.facebook.com/apps)  [Disabled](https://developers.facebook.com/apps)

- **App on Facebook**
  - Use my app inside Facebook.com.

- **Native iOS App**
  - Publish from my iOS app to Facebook.

- **Native Android App**
  - Publish from my Android app to Facebook.

- **Windows App**
  - Publish from my Windows app to Facebook.

- **Page Tab**
  - Build a custom tab for Facebook Pages.

![Save Changes](https://developers.facebook.com/apps)
<html>
<head></head>
<body>
<div id="fb-root"></div>
<script>
window.fbAsyncInit = function() {
 FB.init({
 appID : '1378880249017680',
 status : true, // check login status
 cookie : true, // enable cookies to allow the server to access the session
 xhtml : true // parse XFBML
 });

FB.Event.subscribe('auth.authResponseChange', function(response) {
 if (response.status === 'connected') {
 testAPI();
 } else if (response.status === 'not_authorized') {

 FB.login();
 } else {
 FB.login();
 }
});

// Load the SDK asynchronously
(function(d){
 var js, id = 'facebook-jssdk', ref = d.getElementsByTagName('script')[0];
 if (d.getElementById(id)) {return;}
 js = d.createElement('script'); js.id = id; js.async = true;
 js.src = '//connect.facebook.net/en_US/all.js';
 ref.parentNode.insertBefore(js, ref);
})(document);

function testAPI() {
 console.log('Welcome! Fetching your information...');
 FB.api('/me', function(response) {
 console.log('Good to see you, ' + response.name + '.');
 });
}
</script>

<fb:login-button show faces="true" width="200" max-rows="1"></fb:login-button>
</body>
</html>

http://mail.tku.edu.tw/myday/app/facebook.html
Facebook Login

appID

```javascript
<script>
window.fbAsyncInit = function() {
  FB.init({
    appId: '1378880249017680',
    status: true, // check login status
    cookie: true, // enable cookies to allow the server to access the session
    xfbml: true // parse XFBML
  });
</script>

http://mail.tku.edu.tw/myday/app/facebook.html
Facebook Login

http://mail.tku.edu.tw/myday/app/facebook.html
Facebook Login

Min-Yuh Day uses iMyday.

http://mail.tku.edu.tw/myday/app/facebook.html
Test Facebook Login on jsbin.com

```
<html><head></head><body><div id="fb-root"></div><script>
window.fbAsyncInit = function() {
FB.init({
  appId: '137888240017683',
  status: true, // check login status
  cookie: true, // enable cookies to allow the server to access the session
  xfbml: true // parse XFBML
});

// Here we subscribe to the auth.authResponseChange JavaScript event. This event is fired
// for any authentication related change, such as login, logout or session refresh.
// This means that
// whenever someone who was previously logged out tries to log in again, the correct case below
// will be handled.
FB.Event.subscribe('auth.authResponseChange', function(response) {
  // Here we specify what we do with the response anytime this event occurs.
  if (response.status === 'connected') {
    // The response object is returned with a status field that lets the app know the current
    // login status of the person. In this case, we're handling the situation where they
    // have logged in to the app.
    testAPI();
  } else if (response.status === 'not_authorized') {
    // In this case, the person is logged into Facebook, but not into the app, so we call
    // FB.login() to prompt them to do so.
    // In real-life usage, you wouldn't want to immediately prompt someone to login
    // like this, for two reasons:
    // (1) JavaScript created popup windows are blocked by most browsers unless they
    // result from direct interaction from people using the app (such as a mouse
    // click)
    // (2) it is a bad experience to be continually prompted to login upon page load.
    FB.login();
  } else {
    // In this case, the person is not logged into Facebook, so we call the login()
    // function to prompt them to do so. Note that at this stage there is no
```
Test Facebook Login on jsbin.com

Select how your app integrates with Facebook

http://jsbin.com/OYAxevU/1
Facebook SDK for JavaScript

Getting Started with the Facebook SDK for JavaScript

The Facebook SDK for JavaScript provides a rich set of client-side functionality that:

- Enables you to use the Like Button and other Social Plugins on your site.
- Enables you to use Facebook Login to lower the barrier for people to sign up on your site.
- Makes it easy to call into Facebook's primary API, called the Graph API.
- Launch Dialogs that let people perform various actions like sharing stories.
- Facilitates communication when you're building a game or an app tab on Facebook.

The SDK, social plugins and dialogs work on both desktop and mobile web browsers.

Loading and Initialization

The following code will load and initialize the JavaScript SDK with the most common options. Replace YOUR_APP_ID and WWW.YOUR_DOMAIN.COM with the appropriate values from the App Dashboard.

This code should be placed directly after the opening <body> tag.

```javascript
<fb-root></div>
<script>
window.fbAsyncInit = function() {
  // init the FB JS SDK
  FB.init({
    appId : 'YOUR_APP_ID',
  // App ID from the app dashboard
```
Facebook SDK for JavaScript

```html
<div id="fb-root"></div>
<script>
window.fbAsyncInit = function() {
  // init the FB JS SDK
  FB.init({
    appId: 'YOUR_APP_ID', // App ID from the app dashboard
    status: true, // Check Facebook Login status
    xfbml: true // Look for social plugins on the page
  });

  // Additional initialization code such as adding Event Listeners goes here

  // Load the SDK asynchronously
  (function(d, s, id){
    var js, fjs = d.getElementsByTagName(s)[0];
    if (d.getElementById(id)) {return;}
    js = d.createElement(s); js.id = id;
    js.src = '//connect.facebook.net/en_US/all.js';
    fjs.parentNode.insertBefore(js, fjs);
  }(document, 'script', 'facebook-jssdk'));
</script>
```

https://developers.facebook.com/docs/javascript/gettingstarted/
Facebook SDK for JavaScript

The Facebook SDK for JavaScript provides a rich set of client-side functionality for adding Social Plugins, making API calls and implementing Facebook Login.

Take a look at the Getting Started guide for full information about features and usage.

The following code will load and initialize the JavaScript SDK with the most common options. Replace YOUR_APP_ID with your App ID from the App Dashboard.

This code works best when placed directly after the opening <body> tag.

```html
<div id="fb-root"></div>
<script>
window.fbAsyncInit = function() {
  // init the FB JS SDK
  FB.init({
    appId : 'YOUR_APP_ID',  // App ID from the app dashboard
    status : true,           // Check Facebook Login status
    xfbml : true             // Look for social plugins on the page
  });
</script>
```

https://developers.facebook.com/docs/reference/javascript/
Facebook SDK for JavaScript

```javascript
window.fbAsyncInit = function() {
  // init the FB JS SDK
  FB.init(
    appId : 'YOUR_APP_ID', // App ID from the app dashboard
    status : true, // Check Facebook Login status
    xfbml : true // Look for social plugins on the page
  );

  // Additional initialization code such as adding Event Listeners goes here
};

// Load the SDK asynchronously
(function(){
  // If we've already installed the SDK, we're done
  if (document.getElementById('facebook-jssdk')) {return;}

  // Get the first script element, which we'll use to find the parent node
  var firstScriptElement = document.getElementsByTagName('script')[0];

  // Create a new script element and set its id
  var facebookJS = document.createElement('script');
  facebookJS.id = 'facebook-jssdk';

  // Set the new script's source to the source of the Facebook JS SDK
  facebookJS.src = '//connect.facebook.net/en_US/all.js';

  // Insert the Facebook JS SDK into the DOM
  firstScriptElement.parentNode.insertBefore(facebookJS, firstScriptElement);
}());
```

https://developers.facebook.com/docs/reference/javascript/
window.fbAsyncInit = function() {
  FB.init(
    {
      appId : 'YOUR_APP_ID', // App ID from the app dashboard
      status : true, // Check Facebook Login status
      xfbml : true // Look for social plugins on the page
    });

  // Additional initialization code such as adding Event Listeners goes here

  // Load the SDK asynchronously
  (function(){
    // If we've already installed the SDK, we're done
    if (document.getElementById('facebook-jssdk')) {return;}

    // Get the first script element, which we'll use to find the parent node
    var firstScriptElement = document.getElementsByTagName('script')[0];

    // Create a new script element and set its id
    var facebookJS = document.createElement('script');
    facebookJS.id = 'facebook-jssdk';

    // Set the new script's source to the source of the Facebook JS SDK
    facebookJS.src = 'https://connect.facebook.net/en_US/all.js';

    // Insert the Facebook JS SDK into the DOM
    firstScriptElement.parentNode.insertBefore(facebookJS, firstScriptElement);
  }());
};

https://developers.facebook.com/docs/reference/javascript/
Facebook for Mobile

Documentation

Learn how to build and grow your app or website with Facebook.

- **iOS Developers**
  Add Facebook to your iOS app.

- **Android Developers**
  Add Facebook to your Android app.

- **Web Developers**
  Add Facebook to your site or web app.

- **Game Developers**
  Make your game social with Facebook.

New to developing with Facebook?

Facebook offers tools, services and SDKs to developers who want to integrate social experiences into their apps. Whether your app is on iOS, Android, mobile web or desktop web, Facebook offers tools to make integration easy. We’ve also partnered with other companies to make it easy to integrate on other major platforms as well.

[https://developers.facebook.com/docs/](https://developers.facebook.com/docs/)
Facebook offers tools, services and SDKs to developers who want to integrate social experiences into their apps. Whether your app is on iOS, Android, mobile web or desktop web, Facebook offers tools to make integration easy. We’ve also partnered with other companies to make it easy to integrate on other major platforms as well.

Product Documentation

Social Plugins
Learn to use the Like and Share buttons, Comments and a lot more social plugins.

Facebook Login
Learn how to implement Facebook Login across all platforms.

Open Graph
Open Graph lets apps tell stories on Facebook through a structured, strongly typed API.

And a lot More
Check out the left hand column for all the other products Facebook offers.

Tools to Help You

Parse
Parse is the cloud app platform for iOS, Android, JavaScript, Windows 8, Windows Phone 8, and OS X. Never worry again about setting up your own servers.

Tools
Facebook offers a number of tools that make development with Facebook easier.

Code Samples
Every SDK comes bundled with a couple of sample apps. If you want to learn how to use all the Facebook Platform features just download and install the SDK and start hacking.

Other Useful Links

https://developers.facebook.com/docs/
Facebook for Mobile

Social Plugins

See what your Facebook friends have liked, shared, or commented on across the Web.

- Sharing Checklist
  Follow our sharing best practices.

- Sites Directed to Children under 13
  Read this important information.

Like Button

Let people share pages and content from your site back to their Facebook profile with one click, so all their friends can read them.

https://developers.facebook.com/docs/plugins/
Facebook Like Button

Let people share pages and content from your site back to their Facebook profile with one click, so all their friends can read them.

https://developers.facebook.com/docs/plugins/
Facebook Like Button

The Like button is the quickest way for people to share content with their friends.

A single click on the Like button will 'like' pieces of content on the web and share them on Facebook. You can also display a Share button next to the Like button to let people add a personal message and customize who they share with.

We are rolling out a new design for the Like button. This will involve changes to the design which should not affect the button dimensions, and the share setting replacing the send setting (the send setting will remain for backwards compatibility only). You do not need to do anything to prepare for this change, as your button will automatically be upgraded when ready.

URL to Like

https://developers.facebook.com/docs/plugins/

Width

The pixel width of the plugin

Layout

standard

Action Type

like

Show Friends' Faces

Include Share Button

185,029 people like this. Be the first of your friends.

https://developers.facebook.com/docs/plugins/like-button/
Facebook Like Button

Your Plugin Code

Include the JavaScript SDK on your page once, ideally right after the opening <body> tag.

```html
<div id="fb-root"></div>
<script>(function(d, s, id) {
  var js, fjs = d.getElementsByTagName(s)[0];
  if (d.getElementById(id)) return;
  js = d.createElement(s); js.id = id;
  js.src = "//connect.facebook.net/en_US/all.js#xfbml=1";
  fjs.parentNode.insertBefore(js, fjs);
})(document, 'script', 'facebook-jssdk');</script>

Place the code for your plugin wherever you want the plugin to appear on your page.

```html
```

https://developers.facebook.com/docs/plugins/like-button/
Facebook Like Button

```
<div id="fb-root"></div>
<script>(function(d, s, id) {
    var js, fjs = d.getElementsByTagName(s)[0];
    if (d.getElementById(id)) return;
    js = d.createElement(s); js.id = id;
    js.src = "//connect.facebook.net/en_US/all.js#xfbml=1";
    fjs.parentNode.insertBefore(js, fjs);
})(document, 'script', 'facebook-jssdk'));</script>

<div class="fb-like" data-href="https://developers.facebook.com/docs/plugins/"
    data-layout="standard" data-action="like" data-show-faces="true"
    data-share="true"></div>
```

[https://developers.facebook.com/docs/plugins/like-button/](https://developers.facebook.com/docs/plugins/like-button/)
Facebook Share Button

The Share button lets people add a personalized message to links before sharing on their timeline, in groups, or to their friends via a Facebook Message. If your app is native to iOS or Android, we recommend that you use the native Share Dialog on iOS and Share Dialog on Android instead.

This new Share Button works with a new version of our web-based Share Dialog. When using the sharer.php method of invoking the Share Dialog, this dialog will also display the new version without any changes required.

URL to share
http://developers.facebook.com/docs/plugins/share-button/

Width
The pixel width of the plugin

Layout
button_count

Get Code

Settings

https://developers.facebook.com/docs/plugins/share-button/
Facebook Share Button

Your Plugin Code

Include the JavaScript SDK on your page once, ideally right after the opening <body> tag.

```html
<div id="fb-root"></div>
<script>(function(d, s, id) {
  var js, fjs = d.getElementsByTagName(s)[0];
  if (d.getElementById(id)) return;
  js = d.createElement(s); js.id = id;
  js.src = '//connect.facebook.net/en_US/all.js#xfbml=1';
  fjs.parentNode.insertBefore(js, fjs);
})(document, 'script', 'facebook-jssdk');</script>

Place the code for your plugin wherever you want the plugin to appear on your page.

```html
<div class="fb-share-button" data-href="https://developers.facebook.com/docs/plugins/" data-type="button_count"></div>
```

https://developers.facebook.com/docs/plugins/share-button/
Facebook Open Graph API

Open Graph
Help people tell rich stories on Facebook from your app through a structured, strongly typed API.

Overview
How Open Graph works.

Get Started Tutorial
Example on how to use Open Graph.

What are Open Graph Stories
Once a person grants your app permissions to post to their Facebook Timeline via Facebook Login, your app can start publishing open graph stories on their behalf.

A typical story consists of four elements: an actor, action, object and your app's name. With these elements you can...
Open Graph Overview

In this document:

- Telling Stories with Open Graph
- How Open Graph Works
- Review Process
- Privacy
- Learn More

Telling Stories with Open Graph

Open Graph lets apps tell stories on Facebook through a structured, strongly typed API.

People use stories to share the things they're doing, the people they're doing them with and the places where they happen. Open Graph lets you integrate apps deeply into the Facebook experience, which increases engagement, distribution and growth.

Here's an example story from Goodreads:

https://developers.facebook.com/docs/opengraph/overview/
Getting Started with Open Graph

Getting Started
Documentation > Open Graph > Getting Started

Getting Started with Open Graph

This document guides you through the key steps to publish your first story with Open Graph. You'll build a sample app that likes an object and publishes a story to Facebook.

- Prerequisites
- Step 1: Create a Facebook App
- Step 2: Set Up the App
- Step 3: Publish a Story
- Step 4: Submit Your Actions for Review

Once you're done with this guide, you can also learn about possible next steps.

Prerequisites

In order to finish this walk-through, you'll need access to a public web server on which you can create one static web page.

Step 1: Create a Facebook App

To create a Facebook app, click on Apps on the top of this page and select 'Create a New App'.

This will create a popup box will prompt you to enter two things:

https://developers.facebook.com/docs/opengraph/getting-started/
Step 1: Create a Facebook App

![Facebook App Setup]

### Basic

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>App ID</td>
<td>256778997811632</td>
</tr>
<tr>
<td>Display Name</td>
<td>Open Graph Getting Started</td>
</tr>
<tr>
<td>App Domains</td>
<td>example.com</td>
</tr>
</tbody>
</table>

### Advanced

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>App Secret</td>
<td>**********</td>
</tr>
<tr>
<td>Namespace</td>
<td></td>
</tr>
<tr>
<td>Contact Email</td>
<td><a href="mailto:example@example.com">example@example.com</a></td>
</tr>
</tbody>
</table>

### Website

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Site URL</td>
<td><a href="http://example.com/full-path-to-the-app-file.html">http://example.com/full-path-to-the-app-file.html</a></td>
</tr>
</tbody>
</table>

Accept Mobile Web Payments

If your app accepts payments through any non-iOS approved service, it will be restricted on iOS. [Learn More](https://developers.facebook.com/docs/opengraph/getting-started/)
Step 2: Set Up the App

https://developers.facebook.com/docs/opengraph/getting-started/
Step 2: Set Up the App

```javascript
// Load the SDK Asynchronously
(function(d, s, id){
    var js, fjs = d.getElementsByTagName(s)[0];
    if (d.getElementById(id)) {return;}
    js = d.createElement(s); js.id = id;
    js.src = "https://connect.facebook.net/en_US/all.js";
    fjs.parentNode.insertBefore(js, fjs);
}(document, 'script', 'facebook-jssdk'));

function postLike() {
    FB.api('https://graph.facebook.com/me/og.likes',
        'post',
        { object: objectToLike,
          privacy: { 'value': 'SELF' } },
        function(response) {
            if (!response) {
                alert('Error occurred.');
            } else if (response.error) {
                document.getElementById('result').innerHTML = 'Error: ' + response.error.message;
            } else {
                document.getElementById('result').innerHTML = '<a href="https://www.facebook.com/me/activity/" + response.id + '">' + 'Story created. ID is ' + response.id + '</a>;
            }
        });
});
</script>

https://developers.facebook.com/docs/opengraph/getting-started/
Step 2: Set Up the App

```html
<div class="fb-login-button" data-show-faces="true" data-width="200" data-max-rows="1" data-scope="publish_actions">
</div>

<div>
This example creates a story on Facebook using the
<a href="https://developers.facebook.com/docs/reference/ogaction/og.likes">og.likes</a> API. That story will just say
that you like an
<a href="http://techcrunch.com/2013/02/06/facebook-launches-developers-live-video-channel-to-keep-it/article-on-techcrunch">article</a> on TechCrunch. The story should only
be visible to you.
</div>

<div>
<input type="button"
   value="Create a story with an og.likes action"
   onclick="postLike();">
</div>

<div id="result"></div>
</body>
</html>

https://developers.facebook.com/docs/opengraph/getting-started/
Step 3: Publish a Story

This example creates a story on Facebook using the `og.likes` API. That story will just say that you like an article on TechCrunch. The story should only be visible to you.

Create a story with an og.likes action

This example creates a story on Facebook using the `og.likes` API. That story will just say that you like an article on TechCrunch. The story should only be visible to you.

Create a story with an og.likes action

Story created. ID is 10152558341620483

https://developers.facebook.com/docs/opengraph/getting-started/
Step 3: Publish a Story

https://developers.facebook.com/docs/opengraph/getting-started/
Step 4: Submit Your Actions For Review

https://developers.facebook.com/docs/opengraph/getting-started/
Open Graph

Publishing Actions with the Facebook SDK for Javascript

http://www.youtube.com/watch?v=rZMajQAowKs
Facebook Open Graph API

• A Facebook API to share information
  – From your app
  – To Facebook

• Ex
  – Pinterest

Source: https://www.youtube.com/watch?v=M24gqVJbrN8&list=PL8D1E905D80087F6F
Facebook APIs

Facebook APIs

Graph API
The Graph API is a simple HTTP-based API that gives access to the Facebook social graph, uniformly representing objects in the graph and the connections between them. Most other APIs at Facebook are based on the Graph API.

Open Graph
The Open Graph API allows apps to tell stories on Facebook through a structured, strongly typed API.

FQL
Facebook Query Language, or FQL, enables you to use a SQL-style interface to query the data exposed by the Graph API. It provides for some advanced features not available in the Graph API such as using the results of one query in another.

Localization and translation
Facebook supports localization of apps. Read about the tools we provide.

Atlas API
The Atlas APIs provides you with programmatic access to the Atlas web services.

Public Feed API
The Public Feed API lets you read the stream of public comments as they are posted to Facebook.

Keyword Insights API
The Keyword Insights API exposes an analysis layer on top of all Facebook posts that enables you to query aggregate, anonymous insights about people mentioning a certain term.

https://developers.facebook.com/docs/reference/apis/
The Graph API
The primary way for apps to read and write to the Facebook social graph.

Quickstart
Find out to read and publish data in a few simple steps.

API Reference
Get the full details of all the nodes, edges, and fields in the Graph API.

Using the Graph API
Using the Graph API you are able to post new stories, upload photos, retrieve posts and a variety of other tasks that an app might need to do. This guide will teach you how to accomplish all these things in the Graph API.

Common App Scenarios
Because the Graph API can be used in a massive variety of ways, we have provided a list of common scenarios for apps in this doc, to help you locate the reference doc that you need to build a solution for it.

Advanced Guides
After you've conquered the basics of Graph API, you might want to learn more. We have guides to advanced topics like Making Multiple API Requests, Real Time Updates, and Securing API calls in our Advanced Guides section.

Other APIs
The Graph API is connected to some other Facebook APIs such as FQL. You can read our guides to these APIs in this section.

https://developers.facebook.com/docs/graph-api/
Quickstart for Graph API

The Graph API is the primary way to get data in and out of Facebook’s social graph. It’s a low-level HTTP-based API that you can use to query data, post new stories, upload photos and a variety of other tasks that an app might need to do.

Because this API is HTTP-based, you can try it out for yourself in your web browser right away. When you open this link you’ll see the basic info returned by the Graph API for the Facebook Developers Page.

Most Graph API requests will require the use of access tokens which your app can generate by implementing Facebook Login.

The APIs are composed of nodes (such as a User, a Photo, a Page, a Comment), edges (such as a Page's Photos, or a Photo's Comments), and fields (such as the birthday of a User, or the name of a Page).

This quickstart will show you how the Graph API can read and publish data to the social graph.

How the Graph API is structured

We will cover this fully in our Using Graph API guide, but in general you can read APIs by making HTTP GET requests to the node:

```
GET graph.facebook.com
/{node-id}
```

or edge:

```
GET graph.facebook.com
/{node-id}/{edge-name}
```
Getting Started with the Graph API

http://www.youtube.com/watch?v=WteK95AppF4
How the Graph API is structured

We will cover this fully in our Using Graph API guide, but in general you can read APIs by making HTTP GET requests to the node:

```
GET graph.facebook.com
/{node-id}
```

or edge:

```
GET graph.facebook.com
/{node-id}/{edge-name}
```

You can generally publish to APIs by making HTTP POST requests with parameters to the node:

```
POST graph.facebook.com
/{node-id}
```

or edge:

```
POST graph.facebook.com
/{node-id}/{edge-name}
```

Deleting via APIs is accomplished using HTTP DELETE requests (and updating via POST requests) to the same endpoints. Now let's try an API request, so you can see how easy it is.
Load the Graph API Explorer

The easiest way to understand the Graph API is to use it with the Graph API Explorer, a low-level tool you can use to query, add and remove data. It's a very handy resource to have at your fingertips while you build your app.

So your next step is to goto https://developers.facebook.com/tools/explorer.

Generate a basic Access Token

When you get to building your own app, you'll need to learn about access tokens and how to generate them using Facebook Login, but for now, we can get one really quickly through the Graph API Explorer.

Click on the "Get Access Token" button in the top right of the Explorer:

Get access token

In the next dialog that appears, don't check any boxes, just click the blue "Get Access Token" button. Now you'll see the Login Dialog, click "OK" here to proceed.

Make your first Graph API request

Now you're ready to make your first Graph API request, we'll start with a 'read' request. In the text field beside the "GET" dropdown button (we'll call this the path field), delete the existing text and type in 'me':

https://developers.facebook.com/docs/graph-api/quickstart/
Facebook Graph API Explorer

https://developers.facebook.com/tools/explorer
Facebook Graph API Explorer /me

https://developers.facebook.com/tools/explorer?method=GET&path=me
Facebook Graph API Explorer /me

https://developers.facebook.com/tools/explorer?method=GET&path=me
Facebook Graph API Explorer /me

https://developers.facebook.com/tools/explorer?method=GET&path=me
Facebook Graph API Explorer /me

https://developers.facebook.com/tools/explorer?method=GET&path=me
Facebook Graph API Explorer /me

https://developers.facebook.com/tools/explorer?method=GET&path=me
Facebook Graph API Explorer /me/friends

https://developers.facebook.com/tools/explorer?method=GET&path=me%2Ffriends
Facebook Graph API Explorer
Publish actions

Select Permissions

User Data Permissions | Friends Data Permissions | Extended Permissions

- ads_management
- create_note
- manage_friendlists
- photo_upload
- publish_stream
- read_mailbox
- read_stream
- sms
- xmpp_login
- ads_read
- email
- manage_notifications
- publish_actions
- read_friendlists
- read_page_mailboxes
- read_requests
- rsvp_event
- status_update
- share_item
- video_upload

Basic permissions included by default.

Get Access Token
Facebook Graph API Explorer

Post Message

POST /me/feed

message: Hello, Facebook Graph API

Learn more about the Graph API syntax.

```json
{
  "id": "684393172_10151866099018173"
}
```
Facebook Graph API Explorer
Post Message
http://graph.facebook.com/4

```json
{
    "id": "4",
    "name": "Mark Zuckerberg",
    "first_name": "Mark",
    "last_name": "Zuckerberg",
    "link": "http://www.facebook.com/zuck",
    "username": "zuck",
    "gender": "male",
    "locale": "en_US"
}
```
Facebook API (JSON)
http://graph.facebook.com/4

{
  "id": "4",
  "first_name": "Mark",
  "gender": "male",
  "last_name": "Zuckerberg",
  "link": "https://www.facebook.com/zuck",
  "locale": "en_US",
  "name": "Mark Zuckerberg",
  "username": "zuck"
}

Facebook	
  
  API	
    
    (JSON)
http://graph.facebook.com/minyuhday

```json
{
    "id": "684393172",
    "name": "Min-Yuh Day",
    "first_name": "Min-Yuh",
    "last_name": "Day",
    "link": "http://www.facebook.com/minyuhday",
    "username": "minyuhday",
    "gender": "male",
    "locale": "en_US"
}
```
JavaScript vs. JSON

• JSON
  – JavaScript Object Notation
    • Format for sharing data
    • Derived from JavaScript
    • Language independent
    • An alternative to XML

Source: https://www.youtube.com/watch?v=40aKlrL-2V8
• Advantages
  – Easy to read
  – Easy to write
  – Easy to Parse
    
    ```javascript
    var info = JSON.parse(data);
    info.name
    info.position
    info.courses[i]
    ```
  – Learner than XML
  – Growing support in APIs (i.e., Facebook, Twitter)
  – Natural format for JavaScript
  – Implementation in many languages

Source: [https://www.youtube.com/watch?v=40aKlrL-2V8](https://www.youtube.com/watch?v=40aKlrL-2V8)
```json
{
    "name" : "Min-Yuh Day",
    "position" : "Assistant Professor",
    "courses" : [
        "Social Media Apps Programming",
        "Social Media Marketing",
        "Data Mining"
    ]
}
```

```javascript
var info = JSON.parse(data);
info.name
info.position
info.courses[i]
```

Source: [https://www.youtube.com/watch?v=40aKlrL-2V8](https://www.youtube.com/watch?v=40aKlrL-2V8)
Summary

- Facebook API
  - Facebook JavaScript SDK
  - Integrate Facebook with iOS/Android Apps
  - Facebook Login
  - Facebook Open Graph API
  - Facebook Graph API
References

• Facebook Developers, https://developers.facebook.com/