Notification

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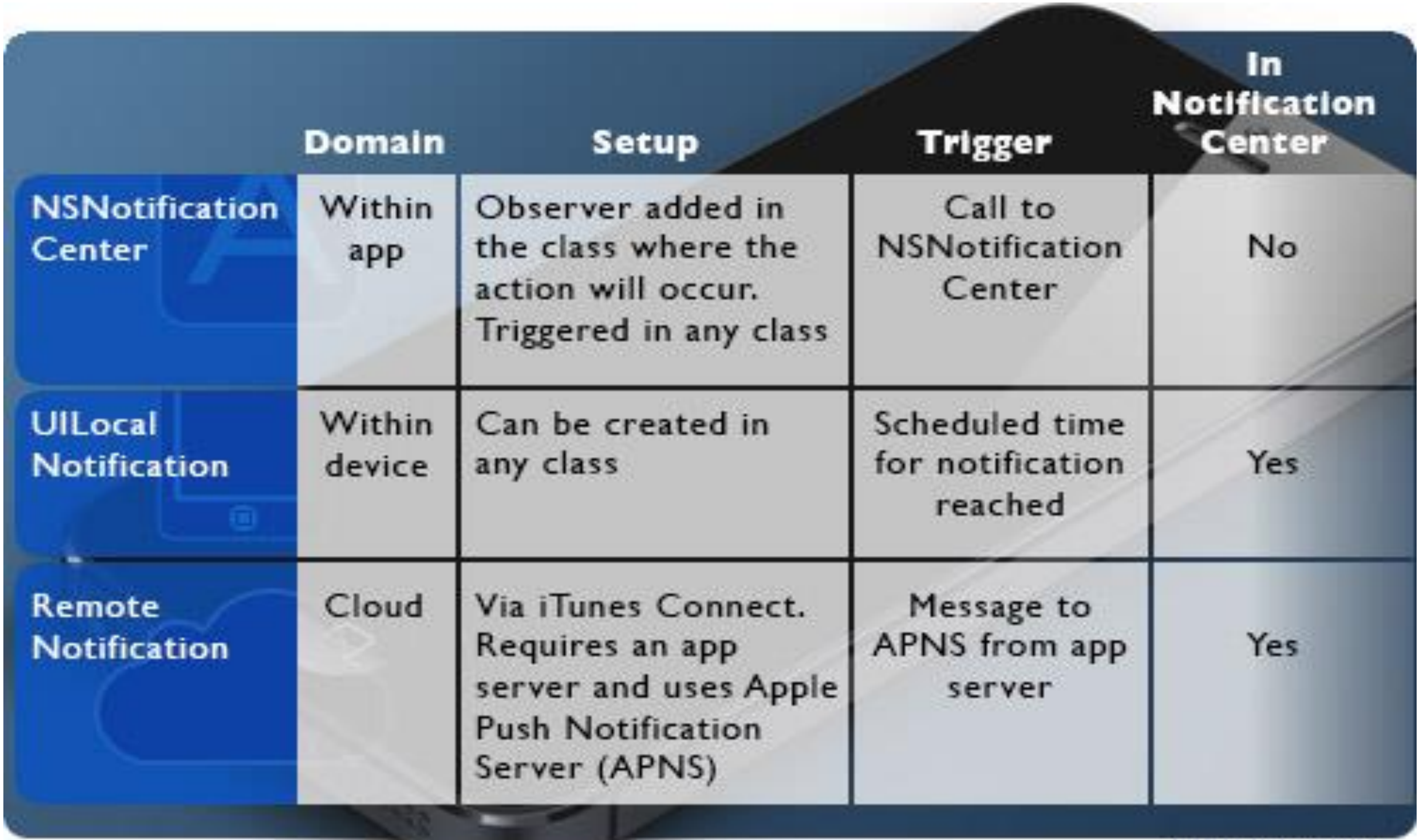
Notification Types



	Domain	Setup	Trigger	In Notification Center
NSNotification Center	Within app	Observer added in the class where the action will occur. Triggered in any class	Call to NSNotification Center	No
UILocal Notification	Within device	Can be created in any class	Scheduled time for notification reached	Yes
Remote Notification	Cloud	Via iTunes Connect. Requires an app server and uses Apple Push Notification Server (APNS)	Message to APNS from app server	Yes

Source: Dice.com

NSNotificationcenter

- NSNotificationcenter is one way you can communicate with other object in a project
- An NSNotificationCenter object (or simply, **notification center**) provides a mechanism for broadcasting information within a program
- Communication of objects can be done by delegate
- Object may register as **observers** with notification center and while other can post the notification

NotificationCenter-Register as Observer

- Use **addObserver** to register.
- NSNotificationCenter *ncenter =[[NSNotificationCenter defaultNotification]
- [ncenter addObserver:self selector:@selector(receivednotification:) name:@”notification id” object:nil];
- The method specified by *notificationSelector* must have one and only one argument (an instance of NSNotification).
- -(void)receivednotification:(NSNotification *)notification

  {

  // write code here ;

  }

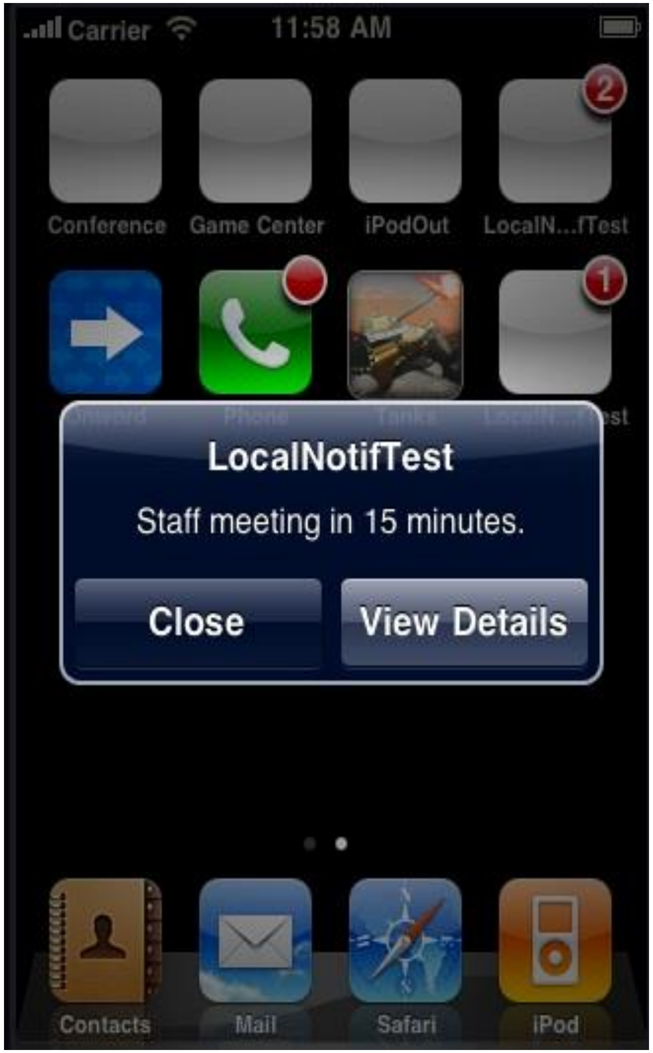
NotificationCenter – Post Message

- Notification name should be matched in class where notification is posted and in observer class.
- [nCenter postNotificationName:@”MyNotification” object:myarray];
- Sample Example:
  - http://code.tutsplus.com/tutorials/ios-sdk-nsnotification--mobile-10619

Notifications: Local & Push

- Local notifications and push notifications are ways for an application that isn’t running in the foreground to let its users know it has information for them
- The information could be a message, an impending calendar event, or new data on local or on remote server
- When presented by the operating system, local and push notifications look and sound the same

Notification View



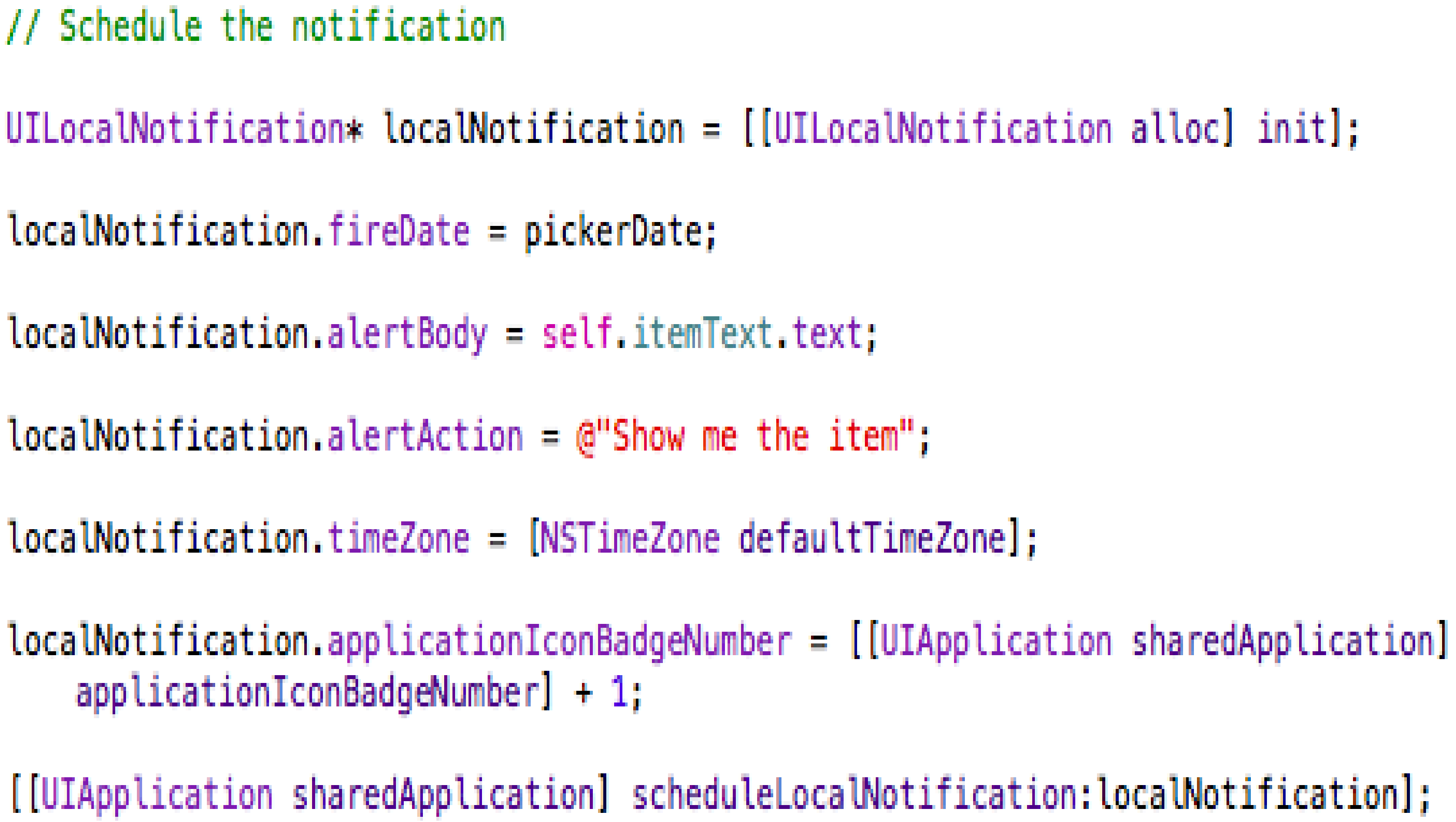
LocalNotifTest

Staff meeting in 15 minutes.

Scheduling Local Notifications

- Creating and scheduling local notifications in iOS requires that you perform a few simple steps:
  - Allocate and initialize a UILocalNotification object
  - Set the date and time that the operating system should deliver the notification(fireDate)
  - Configure the substance of the notification: alert, icon badge number, and sound
  - Schedule the local notification for delivery

Scheduling Local Notifications…



```
// Schedule the notification

UILocalNotification* localNotification = [[UILocalNotification alloc] init];

localNotification.fireDate = pickerDate;

localNotification.alertBody = self.itemText.text;

localNotification.alertAction = @"Show me the item";

localNotification.timeZone = [NSTimeZone defaultTimeZone];

localNotification.applicationIconBadgeNumber = [[UIApplication sharedApplication]
    applicationIconBadgeNumber] + 1;

[[UIApplication sharedApplication] scheduleLocalNotification:localNotification];
```

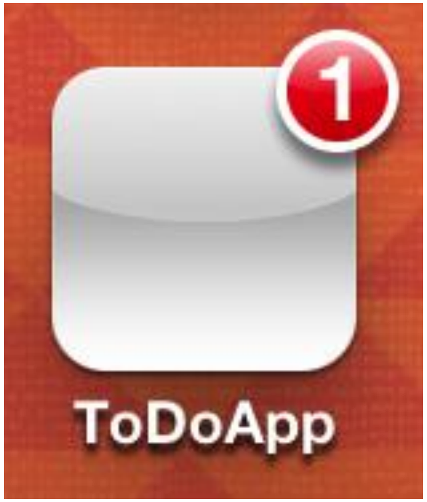
Handling Local Notifications

- Application is NOT Running
  - When the app is not running, users see notifications in the following ways, depending on the notification settings

❖Displaying an alert or banner

❖Badging the app icon

❖Playing a sound



Application not running…

- By tapping on action button of the notification, users will launch the app
- In this case, the application:didFinishLaunchingWithOptions: method of the application delegate is called
- Change the method to Set icon badge number to zero and Handle launching from a notification

Applicaton is Running in Foreground

- If the app is running while the notification is delivered, there is no alert displayed on screen
- The application automatically calls its delegate’s application:didReceiveLocalNotification: method
- Add this method in app delegate .m file and handell the notification

✧For example on locale notification visit:

http://www.appcoda.com/ios-programming-local-notification-tutorial/

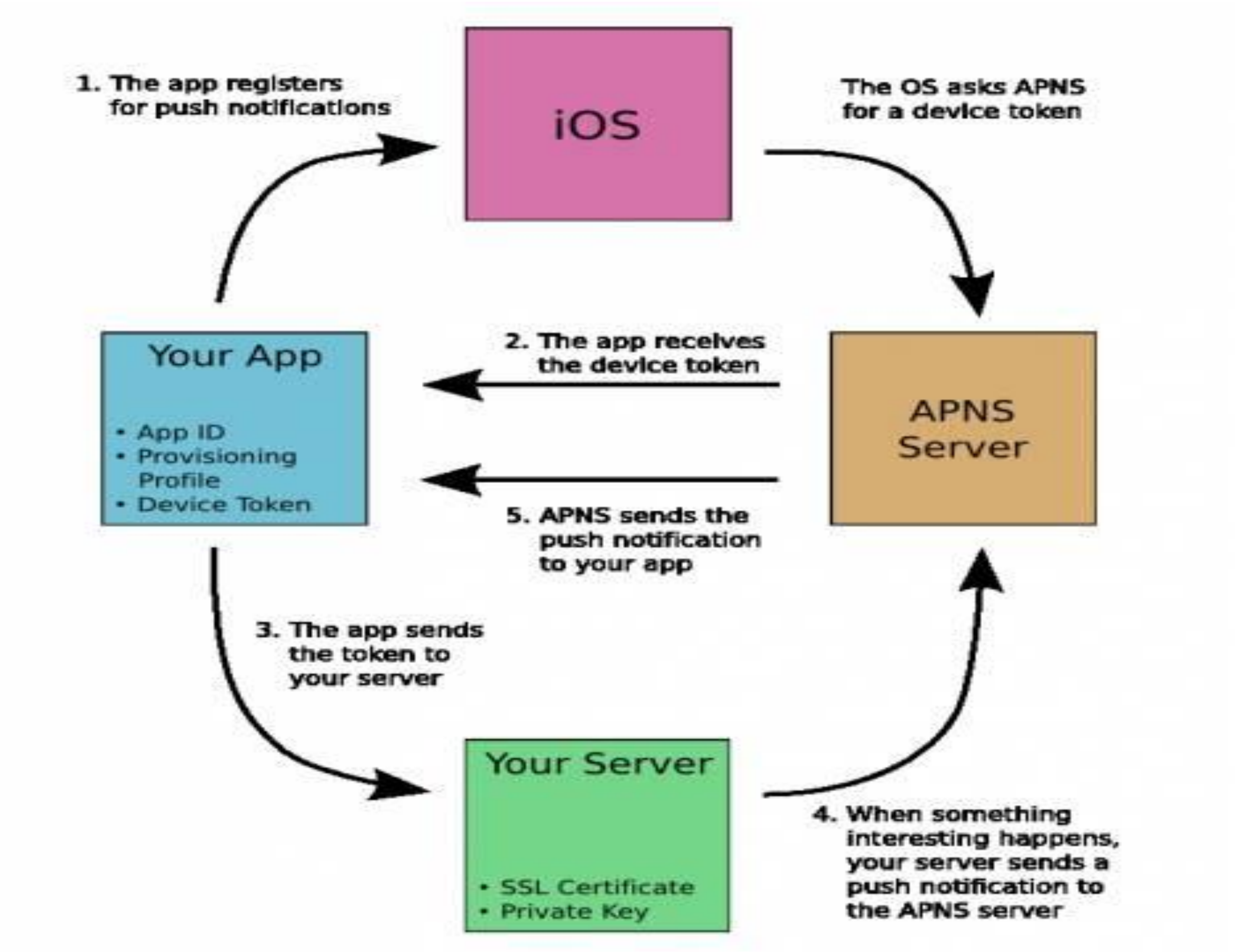
Push Notifications

- Push notifications—also known as remote notifications—arrive from outside a device
- They originate on a remote server—the application's provider
- And are pushed to applications on devices (via the Apple Push Notification service) when there are messages to see or data to download

Using Push Notifications

- When to use them
  - Social networking
  - Current events
  - Games
- When not to use them
  - Delivering critical application information
    - Push may not be available
    - Instead, pull data from server

Push Notification Lifecycle


1. The app registers for push notifications
iOS
The OS asks APNS for a device token
Your App
• App ID
• Provisioning Profile
• Device Token
2. The app receives the device token
APNS Server
5. APNS sends the push notification to your app
3. The app sends the token to your server
Your Server
• SSL Certificate
• Private Key
4. When something interesting happens, your server sends a push notification to the APNS server

Registering for Notifications

- Application launch
- {

```
UIRemoteNotificationType myTypes =
 UIRemoteNotificationTypeSound |
UIRemoteNotificationTypeBadge;
[application
 registerForRemoteNotificationTypes:myTypes]
 ;}
```

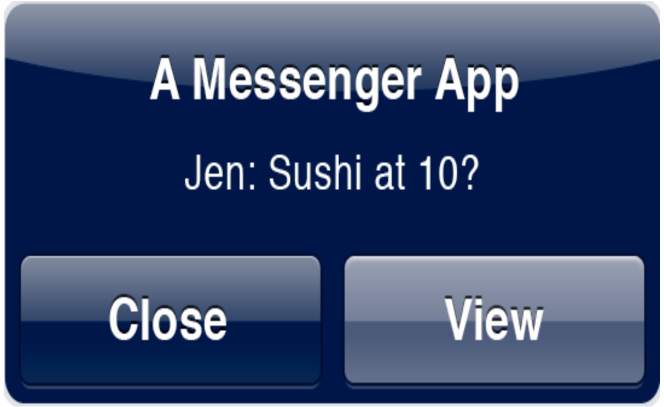
Registering for Notifications…

- Delegate methods for
  - Successful registration
    - - (void)application:(UIApplication *)applicationdidRegisterForRemoteNotificationsWithDeviceToken:(NSData *)token
  - Failure to register
    - - (void)application:(UIApplication *)applicationdidFailToRegisterForRemoteNotificationsWithError:(NSError *)error

Creating Push Notifications

- Message payload
  - aps dictionary reserved for the sound, badge, or alert keys
  - All keys optional
  - {

    "aps" : { "alert" : "Jen: Sushi at 10?”,"badge" : 1,"sound" : "Jingle.aiff”},"acme1" : "conversation9964”}


A Messenger App

Jen: Sushi at 10?

Handling Push Notifications

- If your app is running, you’ll only get
  - - (void)application:(UIApplication *)applicationdidReceiveRemoteNotification

    (NSDictionary *)userInfo
- If not, tapping View will launch your app with:
  - In application:didFinishLaunchingWithOptions: method

```
{         NSDictionary *userInfo = [launchOptions objectForKey:UIApplicationLaunchOptionsRemoteNotificationKey];
}
```