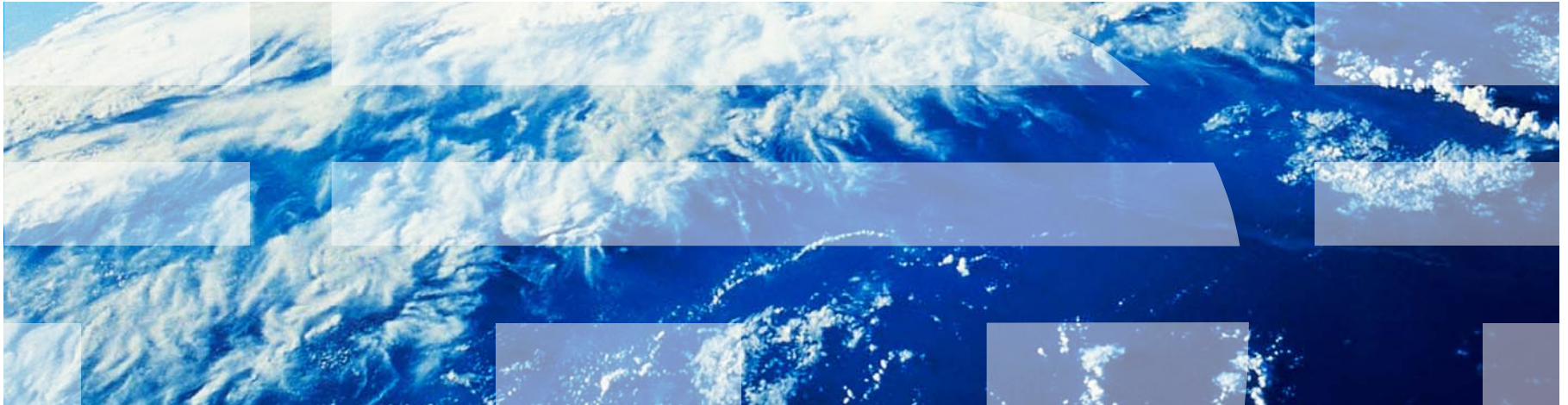# IBM Worklight V6.1.0
# Getting Started

## Running jQuery Mobile-based Flight Ticket Sample

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# *About IBM®*

- See http://www.ibm.com/ibm/us/en/

# *Agenda*

- About this task

- Before you begin

- Known limitations

- Explore the Flight Ticket sample

# *About this task*

- The Flight Ticket sample app is a hybrid sample application that illustrates an end-to-end scenario. Hybrid applications consist of an application that is developed with web technologies such as HTML, CSS, and JavaScript™.

    – The JavaScript invocations call into a JavaScript native bridge.

    – The bridge enables hybrid applications to access native device capabilities such as GPS or a camera, and to use native device UI controls and navigation.

- This style of applications enables developers to use their existing web skills without needing to learn to program in other languages such as Objective-C or Java™.

    – It also frees them from writing multiple versions of the same application for various different platforms.

    – A hybrid application tends to have a similar performance and appearance to a pure native application.

# *About this task*

- The Flight Ticket sample app is a business-to-consumer example that demonstrates different capabilities of a hybrid application in an end-to-end scenario.

  – The scenario covers an individual who is making and managing a flight booking.

  – The individual can perform the following activities:

    - Query and book flights
    - Make a payment
    - Cancel a booking
    - Check in

- The code is available as an Eclipse project for Android and as an Xcode project for iOS.

# *Starting the application server*

- Start the service by using the following instructions:

    1. Deploy the `flightticket.war` file that is provided in module_60_4_FlightTicket to an active application server.

    2. Confirm that the FlightTicket application started normally by accessing the URL:

        – `http://<host>:<port>/flightticket/`

        • The following message on your browser indicates that the service is started and ready to accept requests:

            – `simple index.html`

# *Agenda*

- About this task

- Before you begin

- Known limitations

- Explore the Flight Ticket sample

# *Before you begin – Android (1 of 3)*

- Import the sample project into Worklight® Studio.

  – Select the **Copy project into workspace** check box.

- Build and deploy the HTTP adapters.

- Build and deploy the Android environment.

- For more information about how to build and deploy the sample, see the following modules:

  – Setting up your Worklight development environment

  – Setting up your Android development environment

  – Adapter framework overview

  – HTTP adapter – Communicating with HTTP back-end systems
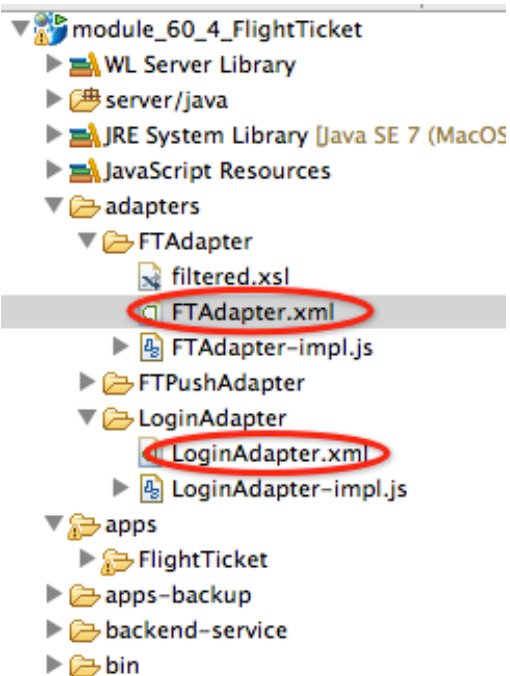
- Enable Push Notification.
  - The Push Notification feature uses the Google Cloud Messaging (GCM) service.
  - Configure the Showcase to use the GCM service as follows:
    - Follow the instructions at http://developer.android.com/guide/google/gcm/gs.html to create a GCM sender ID and API key. You might have to create a Google Gmail account.
    - Edit the **application-descriptor.xml** file in the /apps/mysurance folder of the Android project to add the following element:
      ```
      <pushSender key="API_key"
      senderId="GCM_sender_ID"/>
      ```
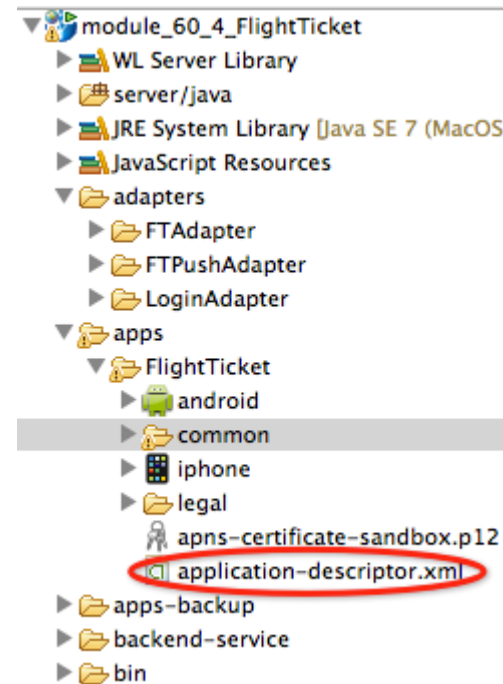
# *Before you begin – Android (3 of 3)*

- Set the `<domain>` and `<port>` element in the `FTAdapter.xml` file and in the `LoginAdapter.xml` file, in the `/adapter` folder of the project.

  – Set the `<domain>` and `<port>` element to the IP address and port of the Application Server where you deployed the `flightticket.war` file.



```
module_60_4_FlightTicket
  WL Server Library
  server/java
  JRE System Library [Java SE 7 (MacOS
  JavaScript Resources
  adapters
    FTAdapter
      filtered.xsl
      FTAdapter.xml
      FTAdapter-impl.js
    FTPushAdapter
    LoginAdapter
      LoginAdapter.xml
      LoginAdapter-impl.js
  apps
    FlightTicket
  apps-backup
  backend-service
  bin
```

```
<wl:adapter xmlns:wl="http://www.worklight.com/integration" xmlns:http="http:

    <displayName>FTAdapter</displayName>
    <description>FTAdapter</description>
    <connectivity>
        <connectionPolicy xsi:type="http:HTTPConnectionPolicyType">
            <protocol>http</protocol>
            <domain>localhost</domain>
            <port>9080</port>
        </connectionPolicy>
        <loadConstraints maxConcurrentConnectionsPerNode="2"/>
    </connectivity>
    <procedure name="FlightsREST_getTripFlights"/>
    <procedure name="BookingsREST_bookFlights"/>
    <procedure name="NotificationREST_mobileReadNotifications"/>
    <procedure name="NotificationREST_deleteNotification"/>
    <procedure name="HotelREST_getHotelsByFlightSegmentId"/>
    <procedure name="HotelREST_bookHotel"/>
    <procedure name="HotelREST_getHotelsByCity"/>
</wl:adapter>
```
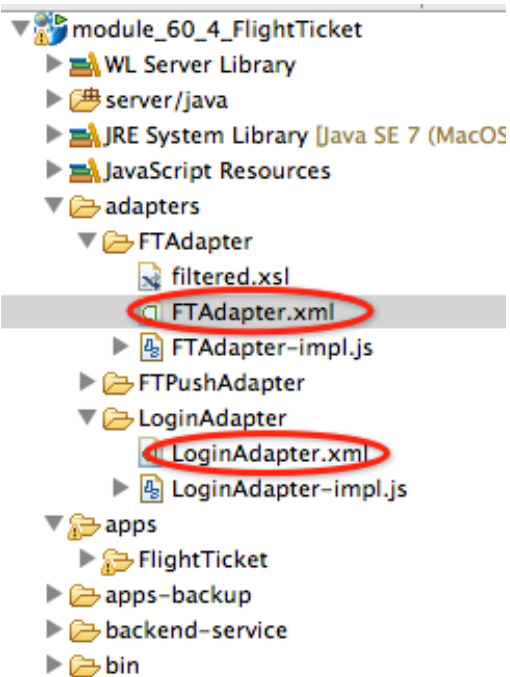
# *Before you begin – iOS (1 of 4)*

- Import the sample project into Worklight Studio.

  – Select the **Copy project into workspace** check box.

- Build and deploy the HTTP adapters.

- Build and deploy the iOS environment.

- See the following modules for how to build and deploy the sample:

  – Setting up your Worklight development environment

  – Setting up your iOS development environment

  – Adapter framework overview

  – HTTP adapter – Communicating with HTTP back-end systems

- Enable Push Notification – The Push Notification feature uses the Apple Push Notification service (APNs)

- Configure the Showcase to use APNs as follows:
  - Configure the app for APNs with the iOS Provisioning Portal:
    1. Create an App ID at the iOS Provisioning Portal.
    2. Enable the App ID for APNs.
    3. Generate an App ID-specific client Development Push SSL certificate.
    4. Create an APNs-enabled provisioning profile for the App ID that you created in step 1.
  - Export the APNs SSL Certificate:
    5. Download the certificate that is generated in step 3 onto your MAC.
    6. Double-click the certificate (`.cer` file) to open it in Keychain.
    7. Expand "My Certificates", and then expand your certificate.
    8. Select the certificate and the private key, and export them as a Personal Information Exchange file with name "`apns-certificate-sandbox.p12`".
    9. Specify a password to protect the certificate.
    10. Save `apns-certificate-sandbox.p12` into the `/apps/FlightTicket` folder of the Worklight project.

– Configure Worklight Studio:

11. Update the `<ipad>` and `<iphone>` sections in the `application-descriptor.xml` file to specify the password that you chose in step 9.

   • `<pushSender password="your_pwd"/>`

12. Update the `bundleId` attribute of the `<ipad>` and `<iphone>` elements in the `application-descriptor.xml` file to match the App ID that you created in step 1.

– Verify the project settings:

13. Open the project in Xcode.

14. Ensure that the App Identifier matches the App ID that you created in step 1, and that the correct provisioning profiles are used to build and sign the application.

# *Before you begin – iOS (4 of 4)*

- Set the `<domain>` and `<port>` element in the `FTAdapter.xml` file and in the `LoginAdapter.xml` file, in the `/adapter` folder of the project.
  - Set the `<domain>` and `<port>` element to the IP address and port of the Application Server where you deployed the `flightticket.war` file.



```
<wl:adapter xmlns:wl="http://www.worklight.com/integration" xmlns:http="http:.

    <displayName>FTAdapter</displayName>
    <description>FTAdapter</description>
    <connectivity>
        <connectionPolicy xsi:type="http:HTTPConnectionPolicyType">
            <protocol>http</protocol>
            <domain>localhost</domain>
            <port>9080</port>
        </connectionPolicy>
        <loadConstraints maxConcurrentConnectionsPerNode="2"/>
    </connectivity>
    <procedure name="FlightsREST_getTripFlights"/>
    <procedure name="BookingsREST_bookFlights"/>
    <procedure name="NotificationREST_mobileReadNotifications"/>
    <procedure name="NotificationREST_deleteNotification"/>
    <procedure name="HotelREST_getHotelsByFlightSegmentId"/>
    <procedure name="HotelREST_bookHotel"/>
    <procedure name="HotelREST_getHotelsByCity"/>
</wl:adapter>
```

# *Agenda*

- About this task

- Before you begin

- Known limitations

- Explore the Flight Ticket sample

# Known limitations – Android (1 of 2)

There are some known limitations in the Flight Ticket sample that is running on Android.

The following instructions describe how to implement workarounds to these limitations:

- Zooming on Android tablets
  - On Android 3.0+ tablets, the sample is automatically zoomed, which gives a poor user experience.
  - To disable zooming, perform the following steps to set the SDK version to 11 or higher:
    1. Right-click the generated Android project, and then click **Properties**.
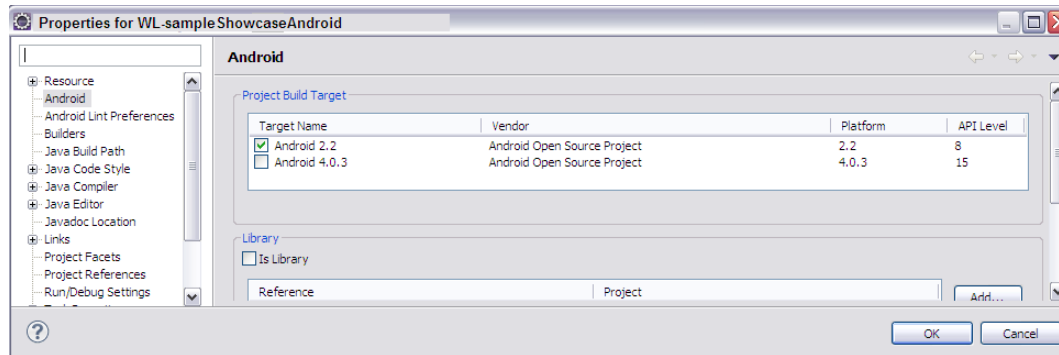


    2. Click **Android** in the properties list.
    3. Change **Project Build Target** to **Android 3.0** or above, and then click **OK**.

# *Known limitations – Android (2 of 2)*

4.  Edit the `AndroidManifest.xml` file in the root folder of the generated project, to set `android:minSdkVersion` to the API level of the Project Build Target.

```
    </application>
    <uses-sdk android:minSdkVersion="15" />
</manifest>
```

- The style of the buttons is not rendered correctly on Android 2.3 (CSS gradient as the button background is not fully supported on Android 2.3).

- In the Hotel Details screen, swiping on the hotel photo might not work smoothly on Android devices.

- For more information about known limitations and defects, see the IBM Worklight user documentation.

# Known limitations – iOS

- There are some known limitations in the Flight Ticket sample that is running on iOS. The following instructions describe how to implement workarounds to these limitations:

- Screen rotation
  - Apache Cordova disables screen rotation by default
  - To enable free rotation, perform the following step:
    - Edit `CDVMainViewController.m`
      - Update method **shouldAutorotateToInterfaceOrientation** to always return **YES** in the generated native Xcode project.

```
- (BOOL)shouldAutorotateToInterfaceOrientation:(UIInterfaceOrientation)interfaceOrientation
{
    // Return YES for supported orientations
    return (interfaceOrientation == YES);
}
```

- For more information about known limitations and defects, see the IBM Worklight user documentation.

# *Agenda*

- About this task

- Before you begin

- Known limitations

- Explore the Flight Ticket sample

# *Explore the sample*

- Load the Flight Ticket sample app.
  - The Login screen is displayed.

- Log in to the app:
  - User name = demo
  - Password = demo

- Click **Login**.
  - A confirmation dialog opens that requests to send notification to you if you did not subscribe before.



  - Tap or click **OK**. An alert is displayed to confirm the subscription.
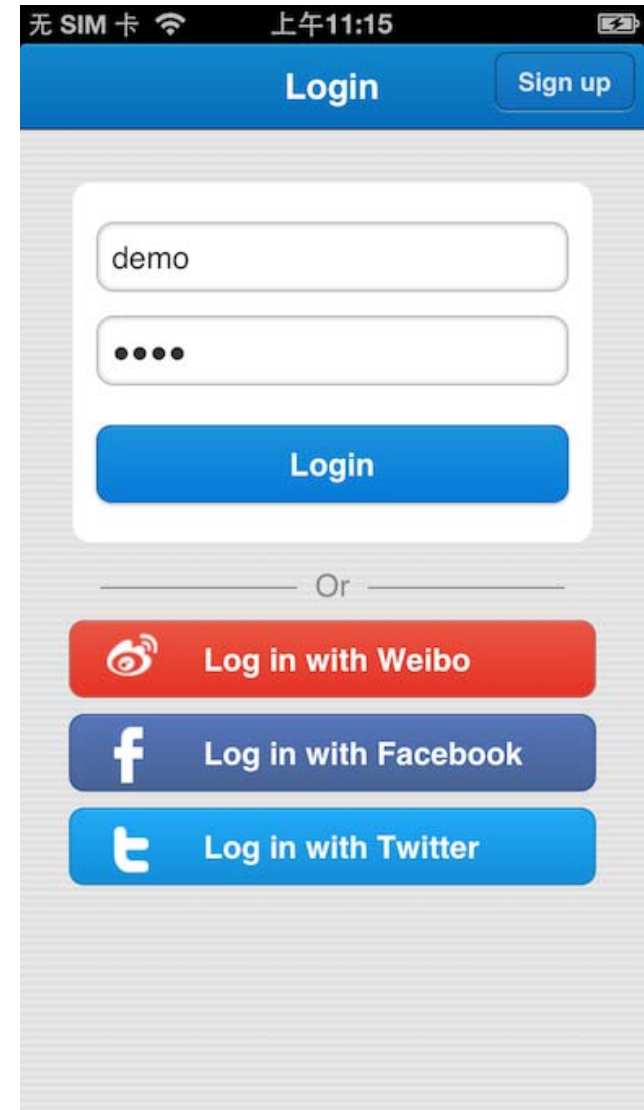
# *Explore the sample*

- Load the Flight Ticket sample app.
  - The main screen is displayed.
- There are six features:
  - Book Flights
  - My Flights
  - Flight Status (not implemented)
  - Special Tickets (not implemented)
  - My Center
  - Travel Assistant
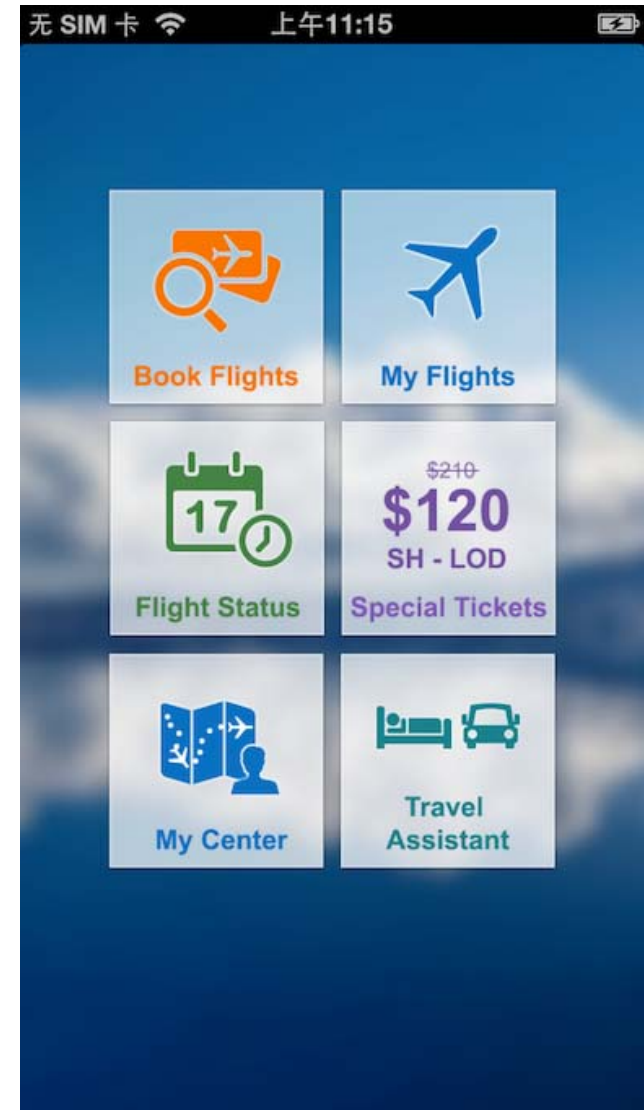
# *Explore the sample: Book Flights*



- Tap or click **Book Flights** on the main screen to begin the flight booking process.

  – The Search Flights screen is displayed.

- Tap or click **One Way** or **Round Trip**.
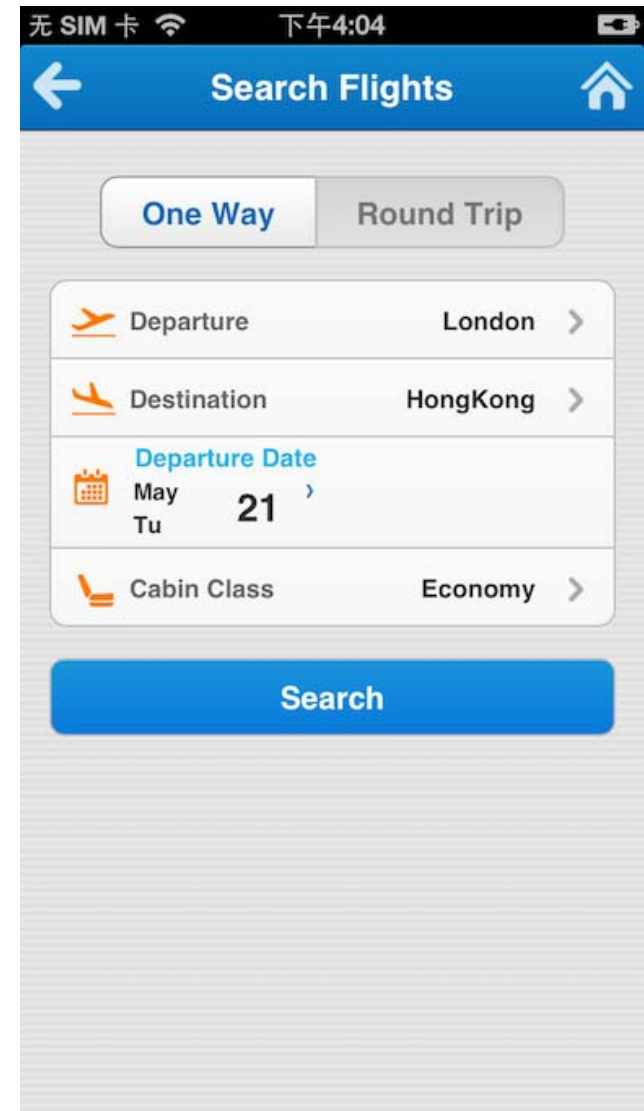
# *Explore the sample: Book Flights*

- Tap or click the following search options:

  - **Departure** to set the departure airport

  - **Destination** to set the destination airport

  - **Departure Date** to set the departure date

  - **Return Date** to set the return date

  - **Cabin Class** to set the cabin class
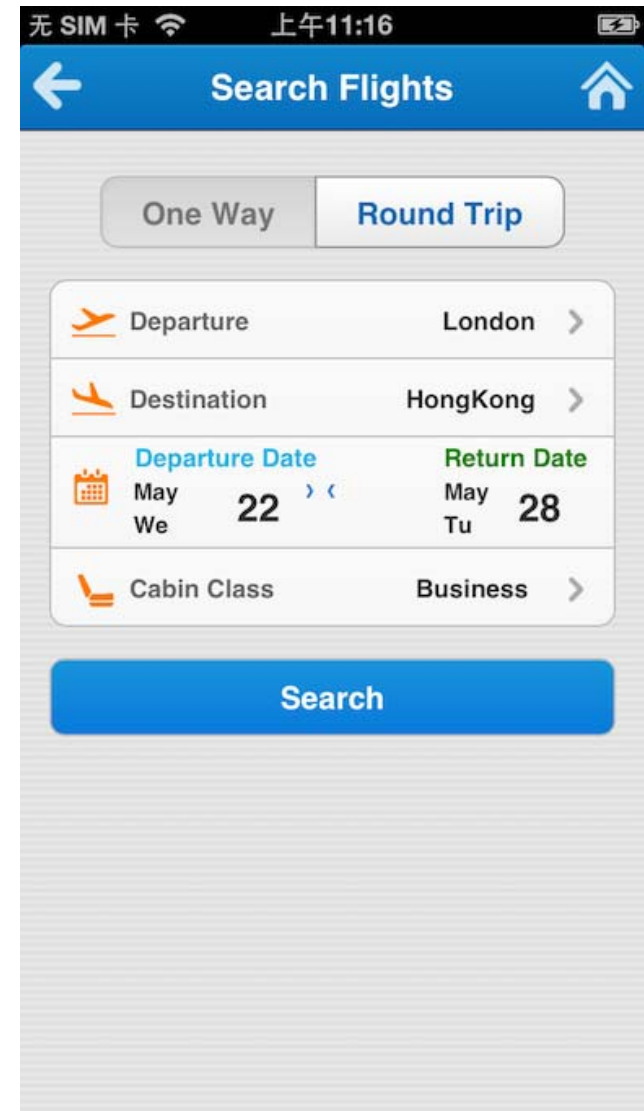
# *Explore the sample: Book Flights*

- Departure and Destination airports

  – Tap or click **Departure or Destination** to display the Select Airport screen.

- The airport list is pre-populated with the most popular airport cities.

  – Tap or click a city to select it.

- Use the **Search** field to search for a hot city.

  – Search text is not case-sensitive: *London*, *LonDON*, or *LONDON* return the same result.
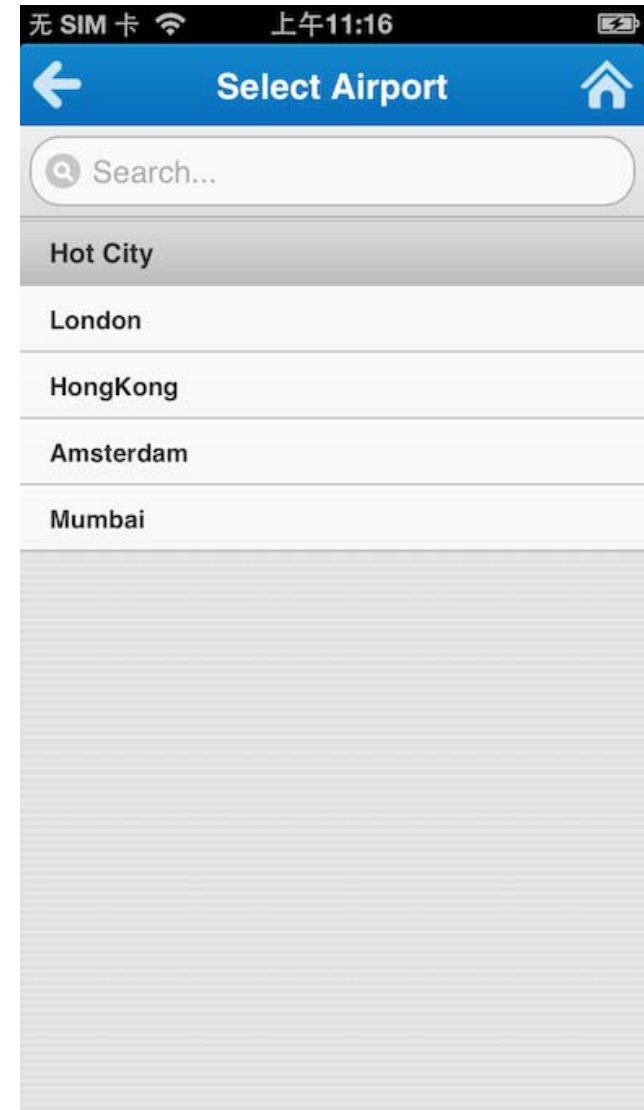
# *Explore the sample: Book Flights*

- Departure and Return dates

  – Tap or click **Departure Date** or **Return Date** to display the date selector.

- Use the date selector roller to set the required departure date or return date.

  – Tap or click **Set** to add the date to the flight search criteria.
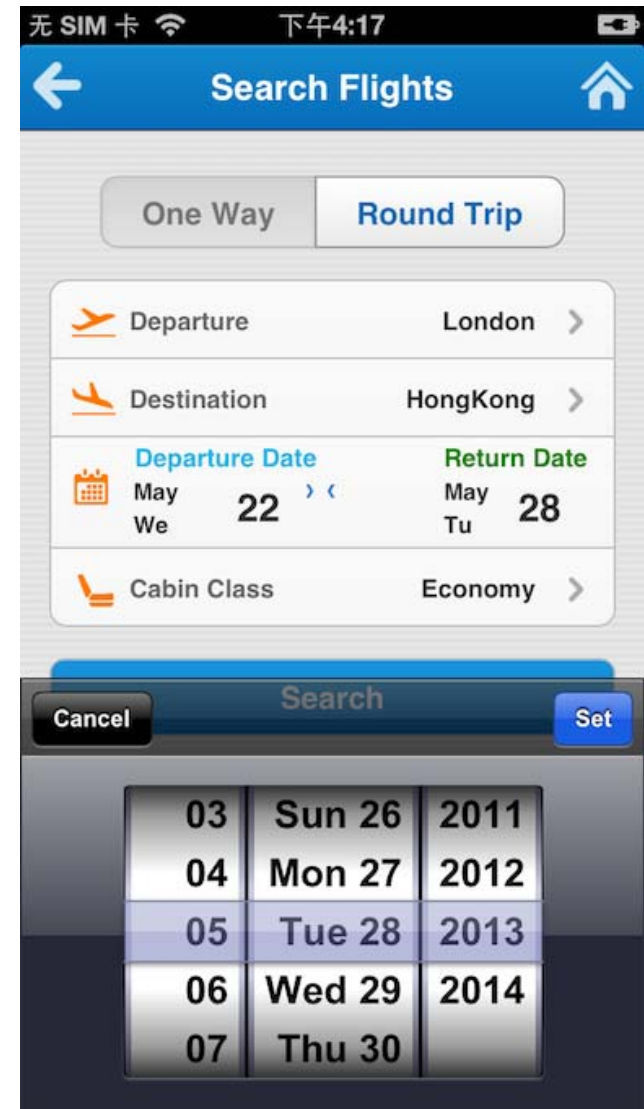
# *Explore the sample: Book Flights*

- On the Search Flights screen, tap or click **Search** to begin the flight search.

  – The Outbound Flight screen is displayed.

- Tap or click an outbound flight to select it.
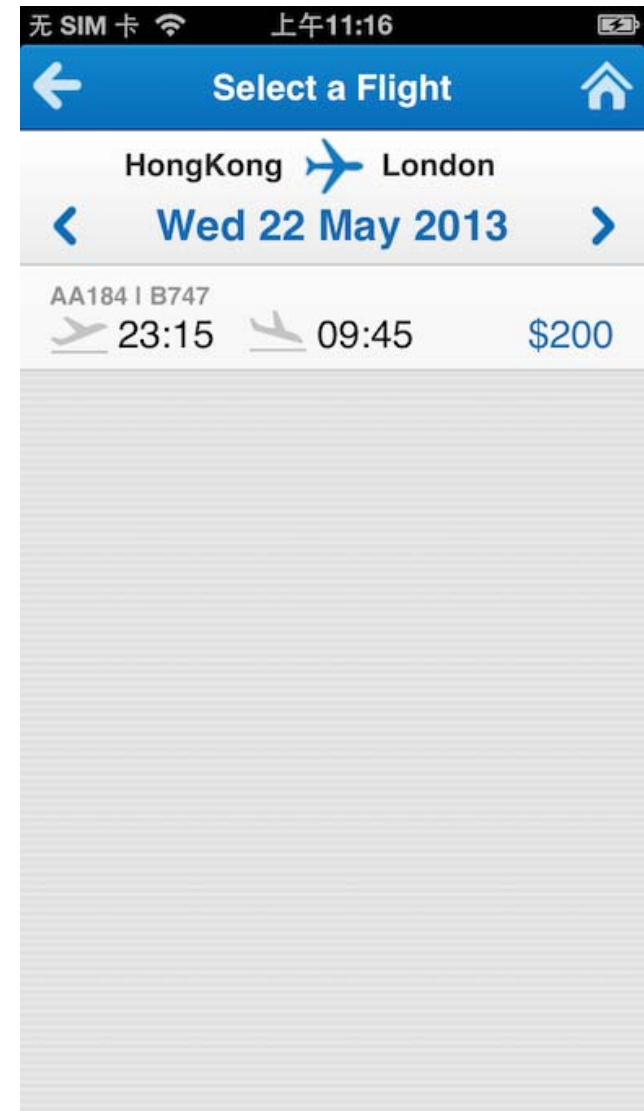
# *Explore the sample: Book Flights*

- If you selected **Round Trip** on the Search Flights screen, the Return Flight screen is displayed.

- Tap or click a return flight to select it.
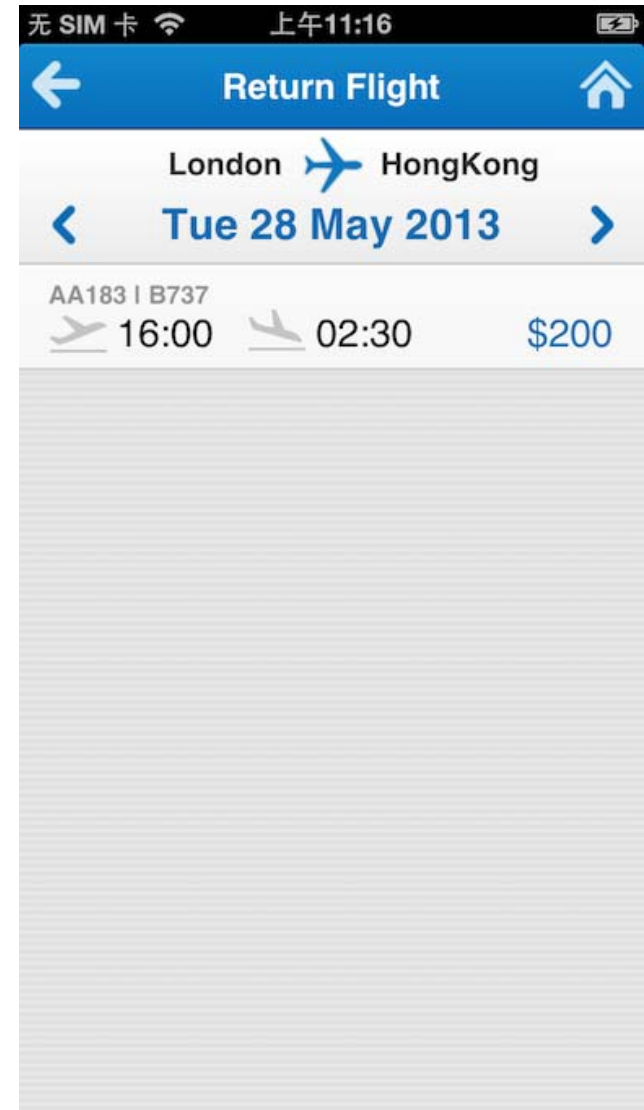
# *Explore the sample: Book Flights*

- The Book Ticket screen displays the following details:
  - Selected flight information
  - Passenger information

- The Flight Ticket sample is pre-populated with one default passenger details.

- Tap or click the upper right button to add a passenger.
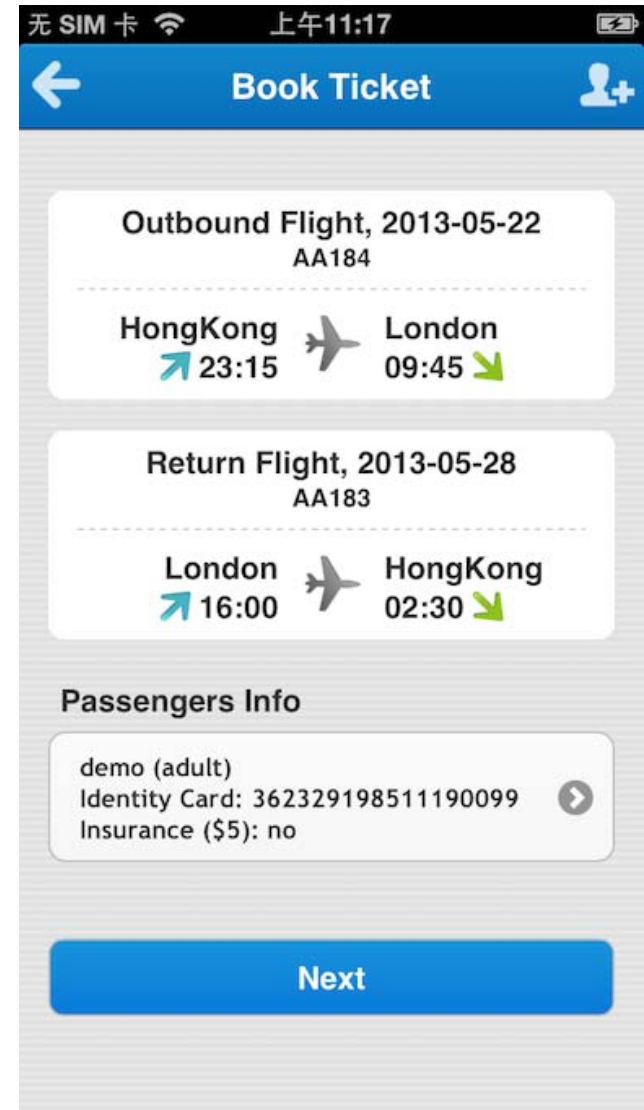
# *Explore the sample: Book Flights*

- Tap or click an existing passenger on the Book Ticket screen to update the passenger details or delete the entry.
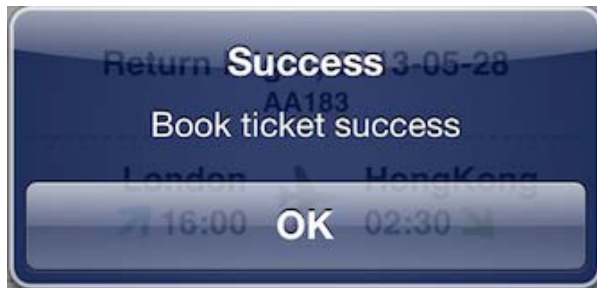
# *Explore the sample: Book Flights*

- Tap or click **Next** on the Book Ticket screen to continue to the order process.

  – The Order Summary screen is displayed.

- The Order Summary screen displays your order details.
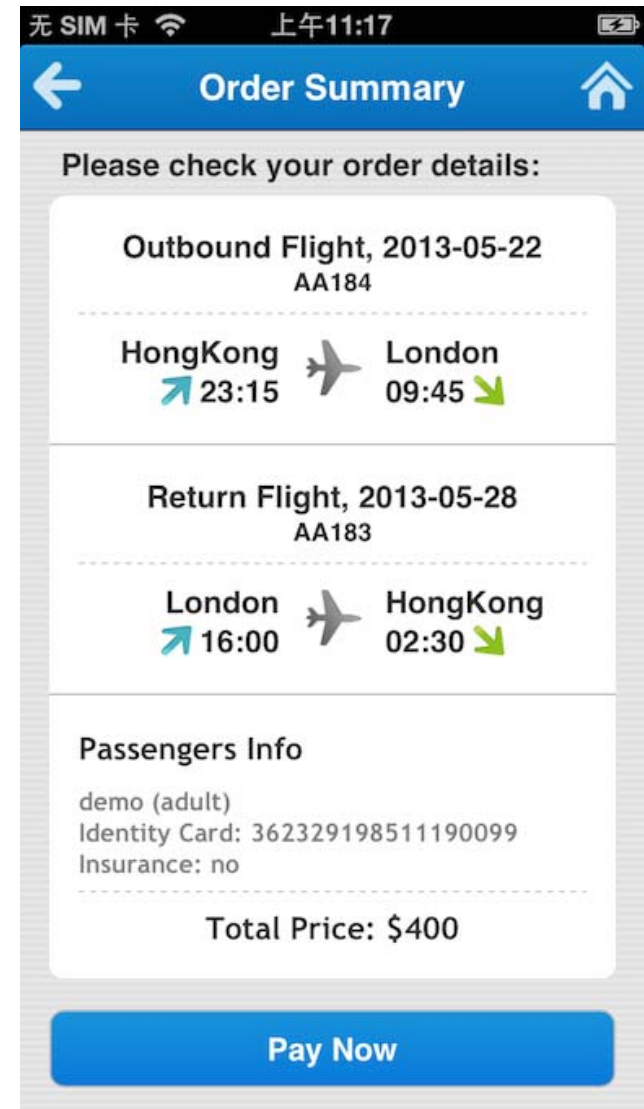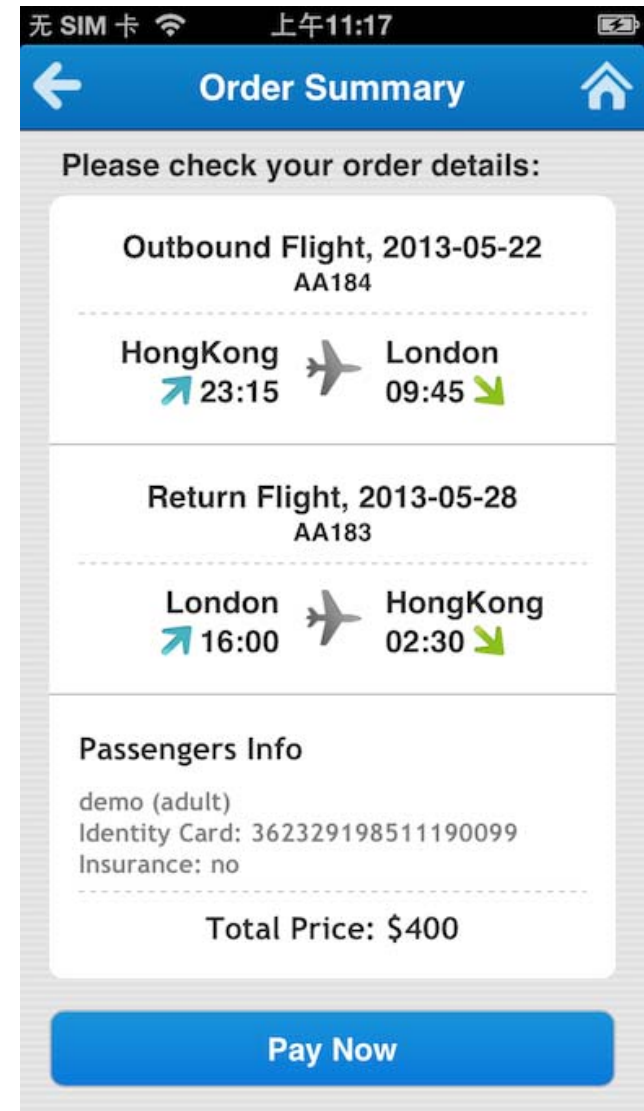
# *Explore the sample: Book Flights*

- Tap or click **Pay Now** at the bottom of the Order Summary screen to confirm the booking and make your payment.

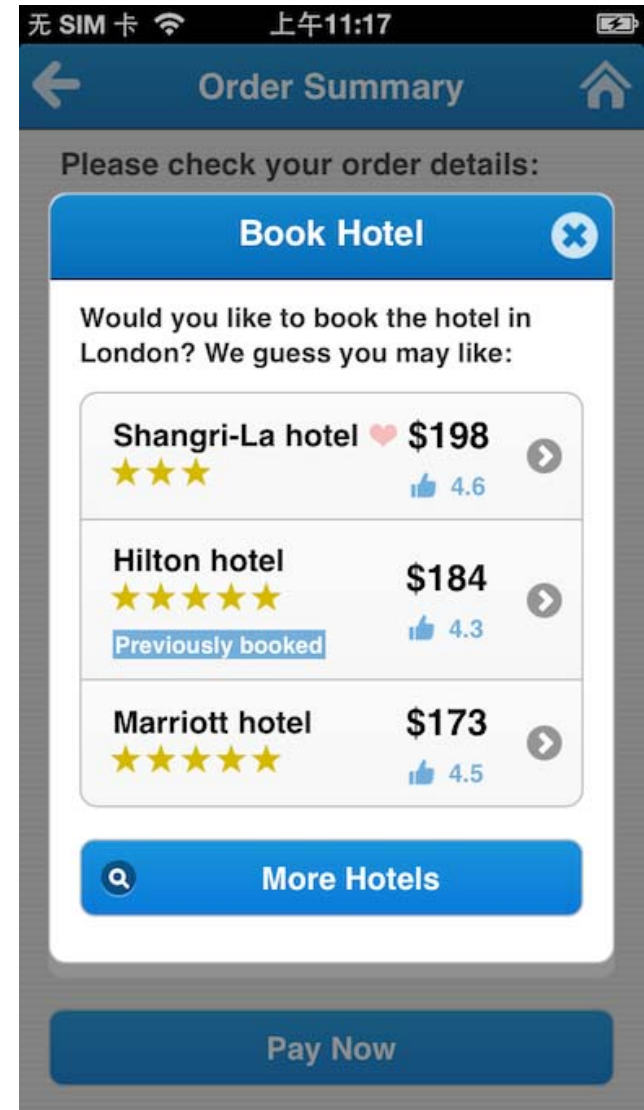  – An alert is displayed to confirm your payment.

- Tap or click **OK**.

  – The Book Hotel screen is displayed.

# *Explore the sample: Book Flights*

- The Book Hotel screen displays a list of hotels, according to the selected flight.

  – Tap or click a hotel. The Hotel Details screen is displayed.

# *Explore the sample: Book Flights*

- The Hotel Details screen displays information about the selected hotel.

  - Swipe left or right on the photo to see different photos of the hotel.

- Tap or click **Next**.

  - The Booking page is displayed.
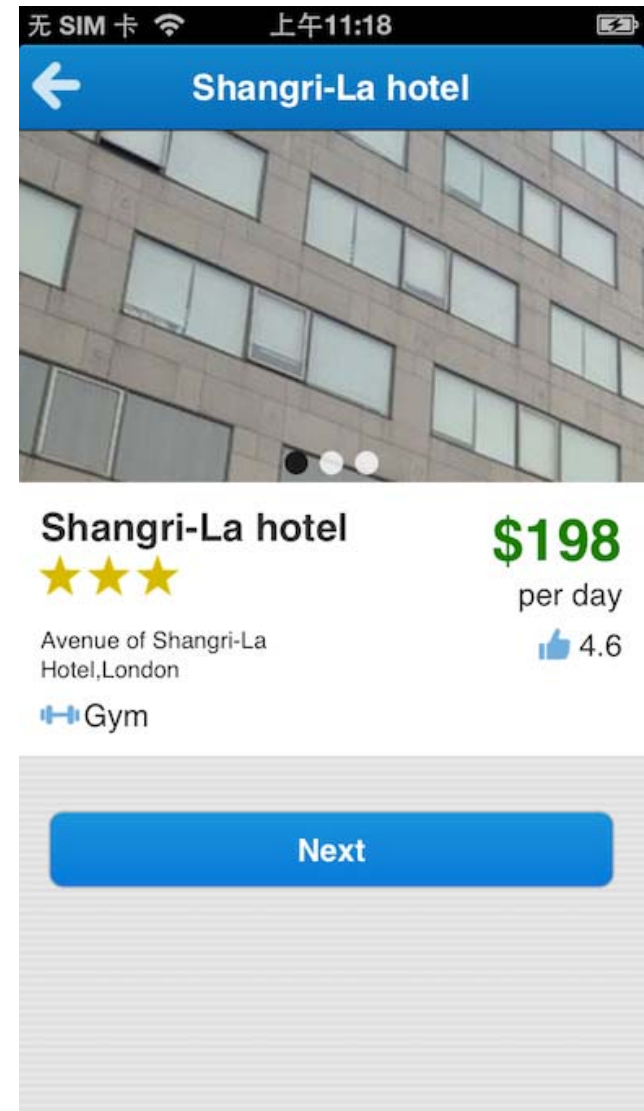
# *Explore the sample: Book Flights*

- Tap or click the following booking options:

  – **Check in date** to set the date when you check in.

  – **Check out date** to set the date when you check out.

  – **Room Type** to set the room type.

  – **Room Number** to set the room number.

- Tap or click **Book Now**.

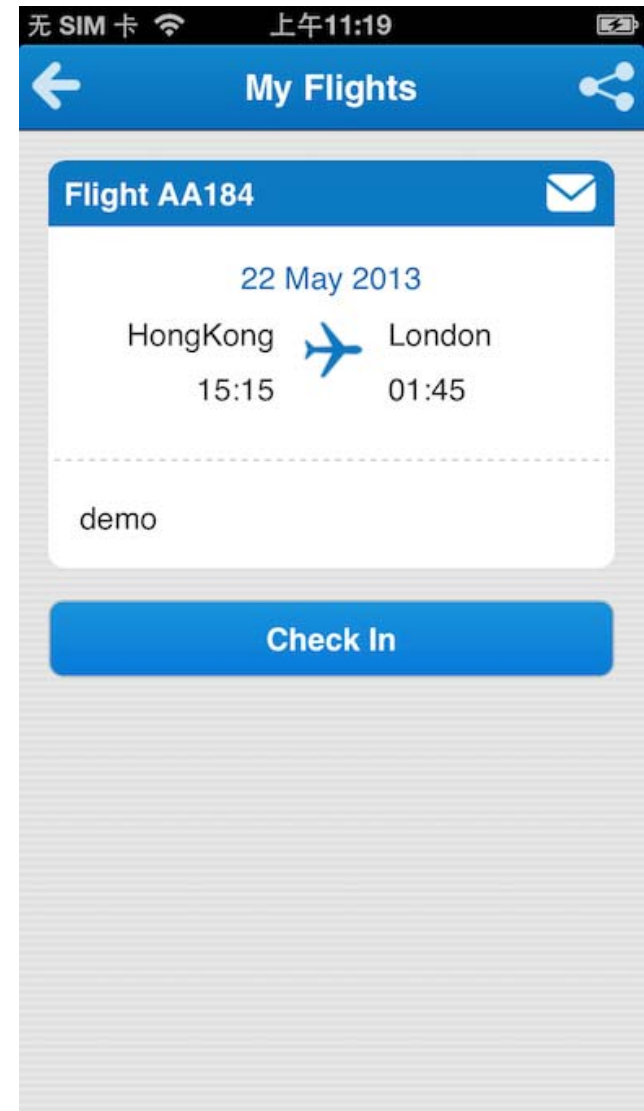  – An alert is displayed to confirm the booking.
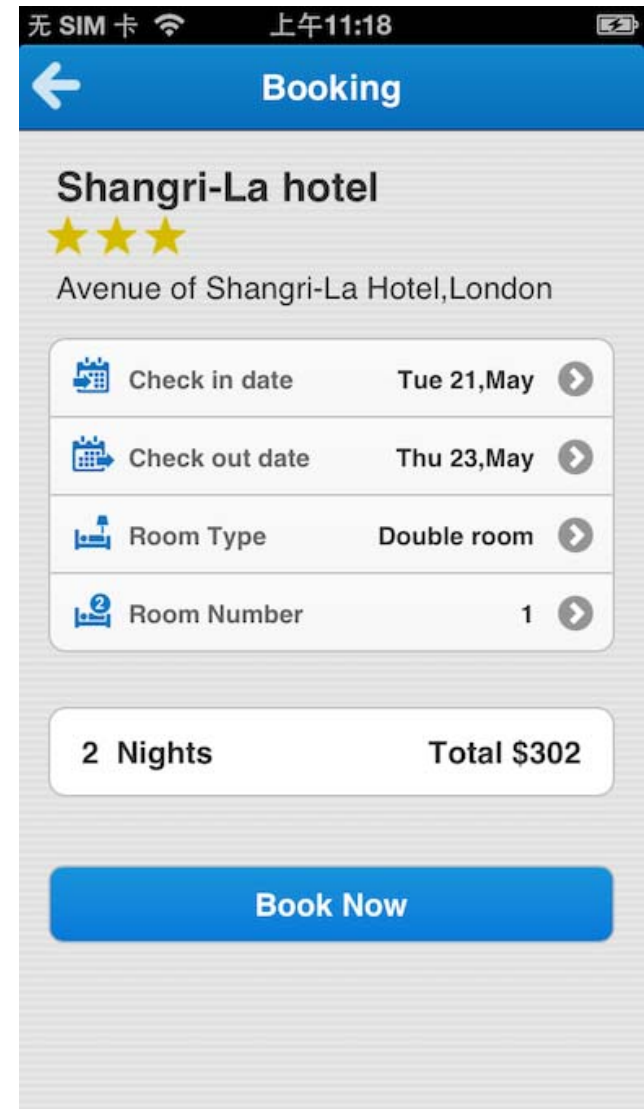
# *Explore the sample: My Flights*

- Tap or click **My Flights** on the main screen to view your flights.

  – The **My Flights** screen displays your booked flights.

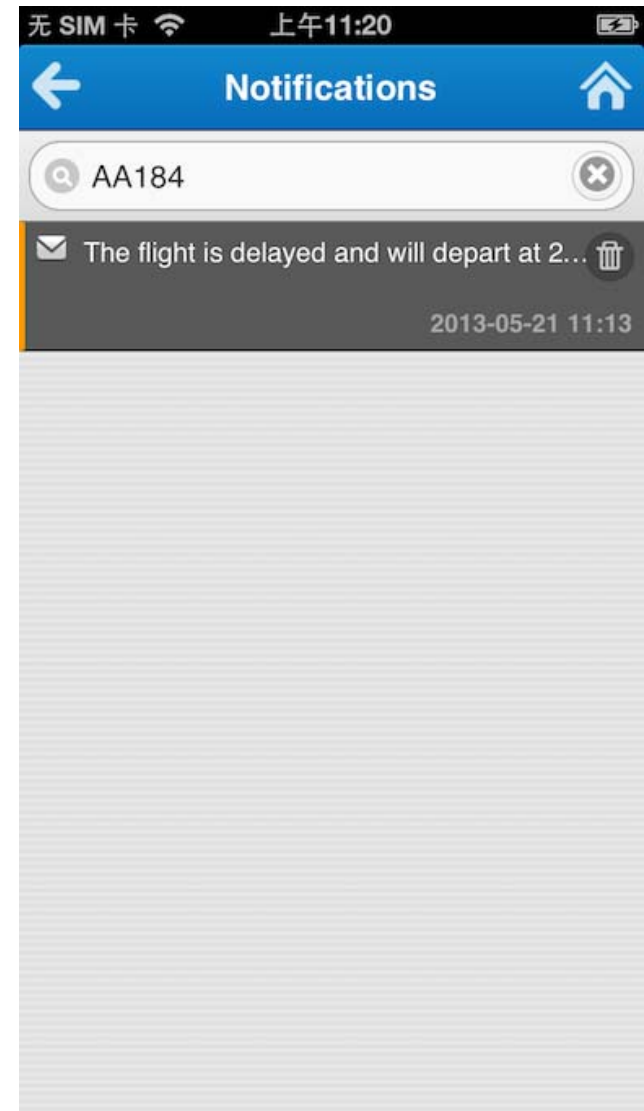- Tap or click a flight to select it.
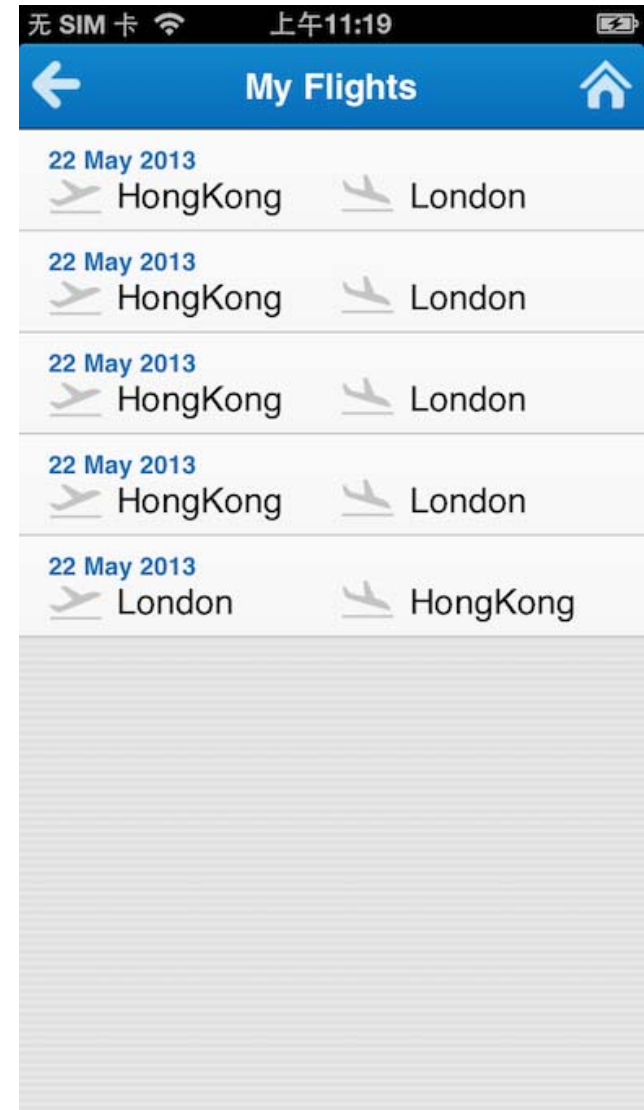
# *Explore the sample: My Flights*

- The selected flight is displayed.

# *Explore the sample: My Flights*

- Tap or click the message icon on the My Flights screen to view the notifications that relate to the selected flight.

  – The Notifications screen is displayed.

# *Explore the sample: My Flights*

- Tap or click the social-share icon on the My Flights screen to post a social message.

  - The Share screen is displayed.

- Tap or click **Post on Weibo/Facebook/Twitter** to post a message to social network.

  - An alert is displayed to confirm the post.
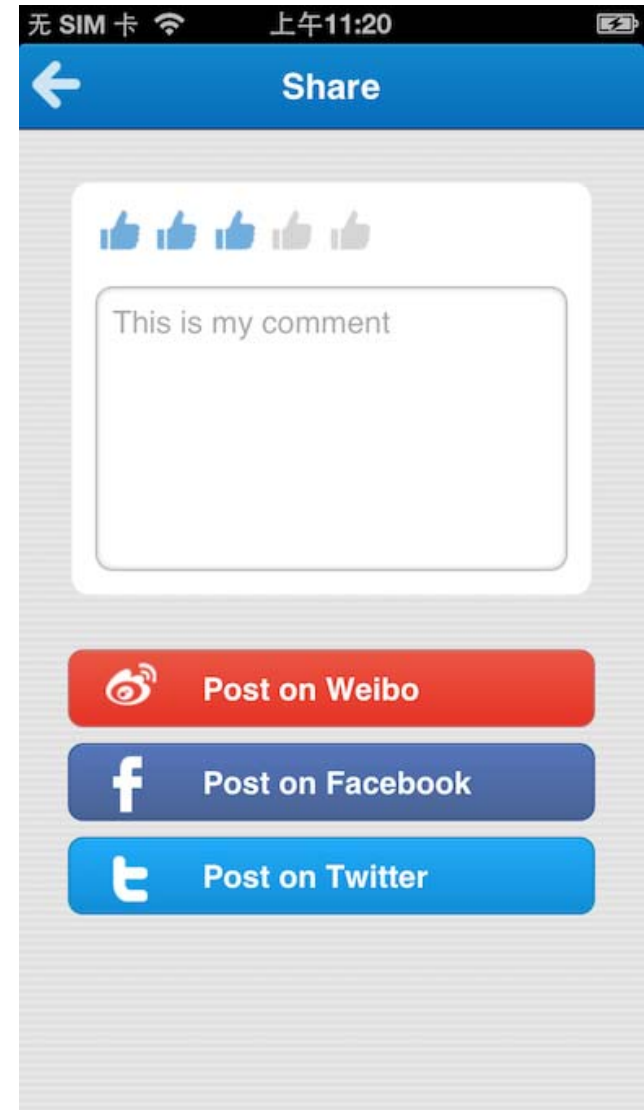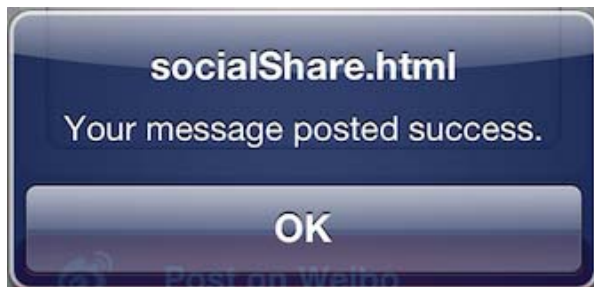
# *Explore the sample: My Flights*

- Tap or click **Check In** on the My Flights screen to check in.

  – The Select Seat screen is displayed.

- Tap or click an empty seat to select it.

  – An alert is displayed to confirm selection.

    You selected seat: 2D

- If you select an occupied seat, a warning is displayed.

    This seat is booked, please choose another one.

    **OK**
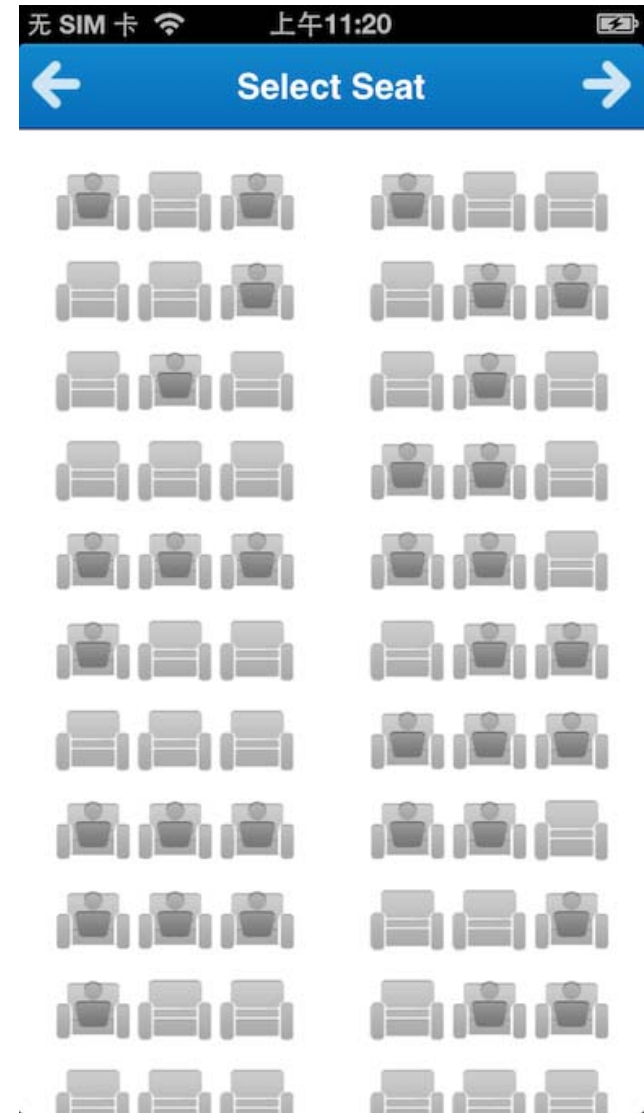
# Explore the sample: My Flights

- Tap or click the seat again to cancel your selection.

- Tap or click another seat to change your selection.

- Tap or click the **right arrow** → to create your boarding pass.
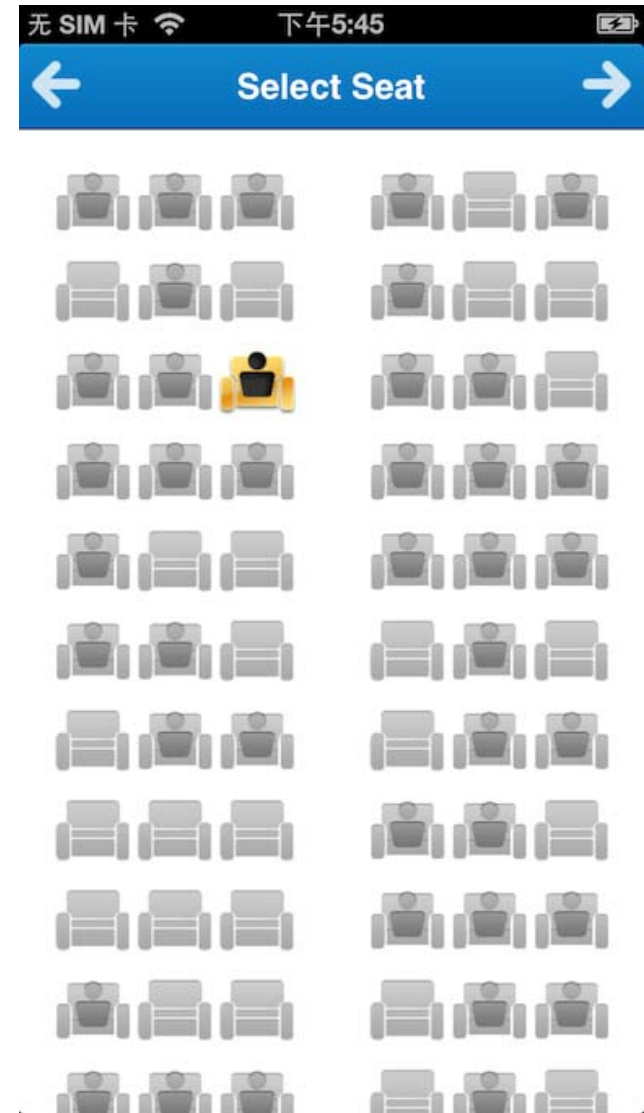
# *Explore the sample: My Flights*

- The Boarding Pass screen displays your boarding pass details.

- The Boarding Pass screen also displays a Quick Response Code (QR Code) that contains your boarding pass details in a machine-readable format.
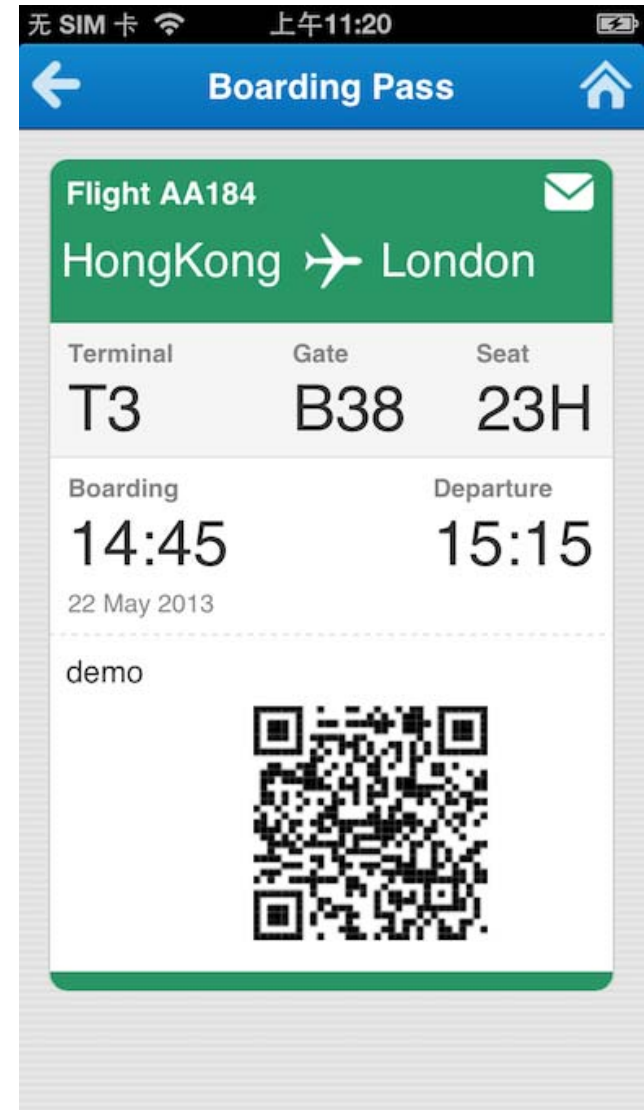
# Explore the sample: My Center

- Tap or click **My Center** on the main screen to view your profile.

  - The Profile screen is displayed.

- Tap or click **Logout** to log out of the app.

- Tap or click the message icon to view all notifications.

  - The Notifications screen is displayed.
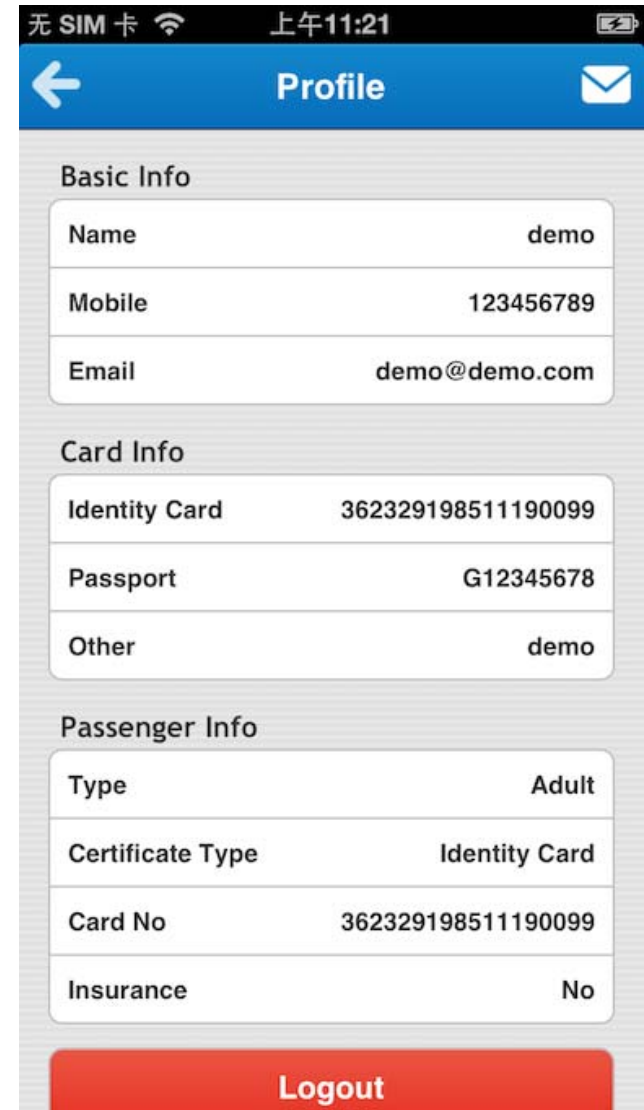
# *Explore the sample: My Center*

- The Notifications screen displays all the notifications. There are three types of notifications.

  – Tap or click a notification to expand it.

  – Tap or click the **delete** icon to remove the notification.

Use the **Search** field to search for the notifications of a specific flight.

  – Type a flight number in the search box.
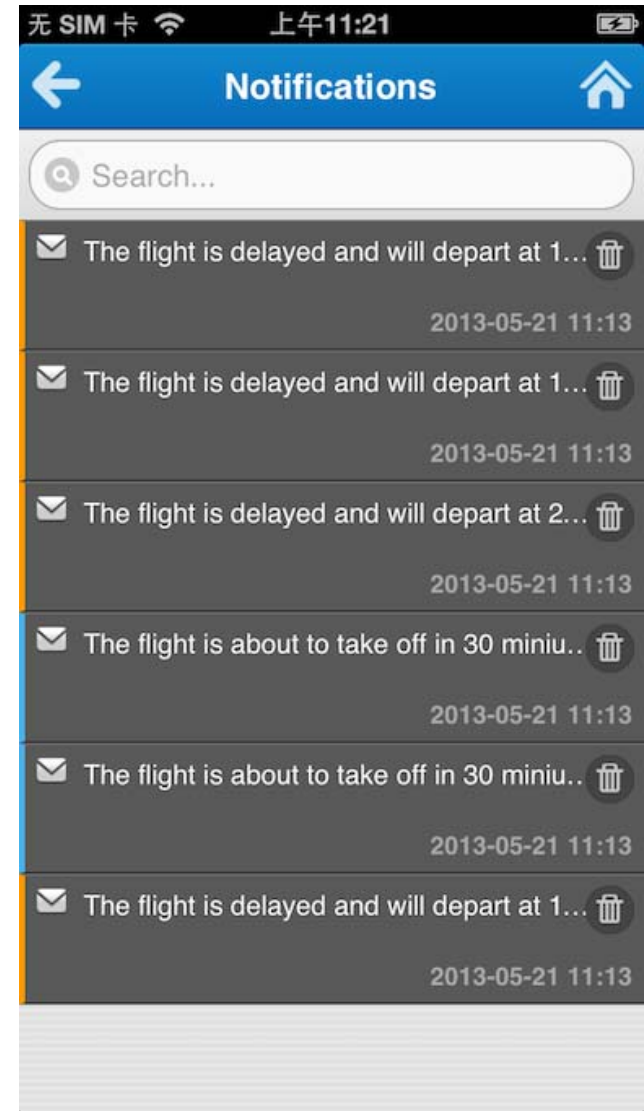
# *Explore the sample: My Center*

- Server Notification
  - Go to the Flight Ticket server to send a notification:
    `http://<host>:<port>/flightticket/notification.html`
  - Set the Flight Number.
  - Select a Message Type: **Delayed** or **Reminder**.
  - Set the Worklight Server address.
  - Click **Post Message**.

**Post Message:**

Flight Number: `AA183` ÷
Message Type: `Delayed` ÷
Worklight Server Address: `localhost:10080/module_60_4_Flight`
`Post Message`

# *Explore the sample: My Center*

- Client Notification:

  - If the app is running in the foreground, an alert informs you that you received a new message.

    

  - If the app is not running, the notification is displayed in the status bar.

    - Click the notification to wake up the app
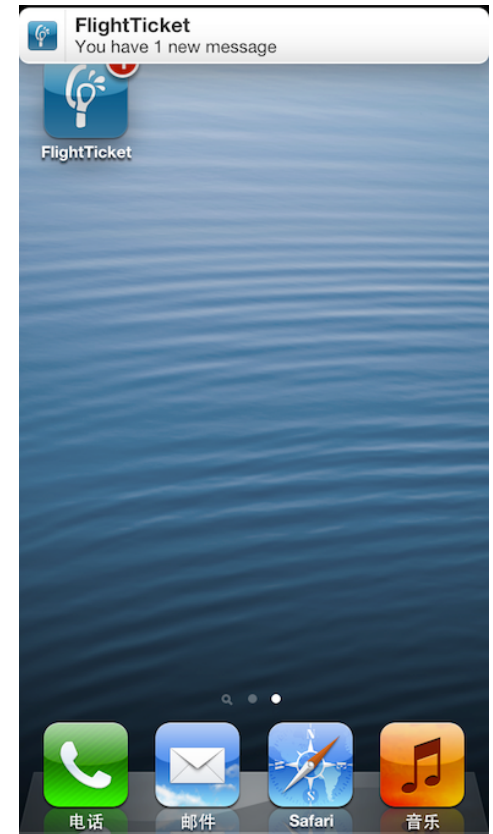
# *Explore the sample: Travel Assistant*

- Tap or click **Travel Assistant** on the main screen to search/book a hotel.

  – The Book a Hotel screen displays a hotel list near to the airport of your flights.

- Tap or click a hotel to book the hotel.

- Tap or click the search icon to search hotels.

  – The Search Hotel screen is displayed.
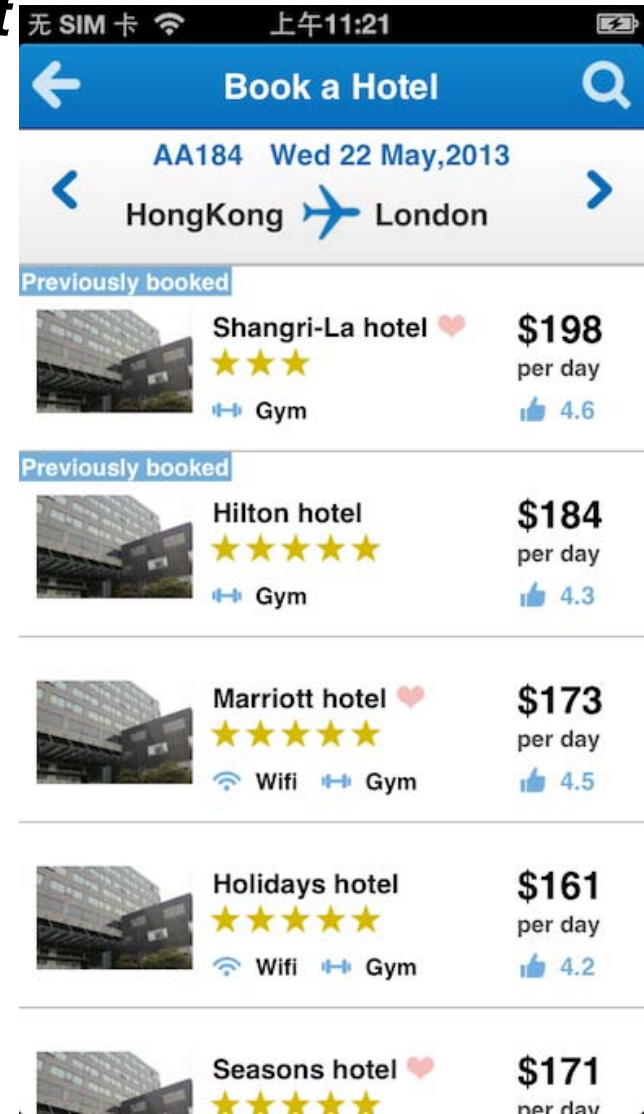
# *Explore the sample: Travel Assistant*

- Use the Search Hotel screen to search hotels of a city with different options:

  - Near **Airport**, **Downtown**, or **Shopping Mall**
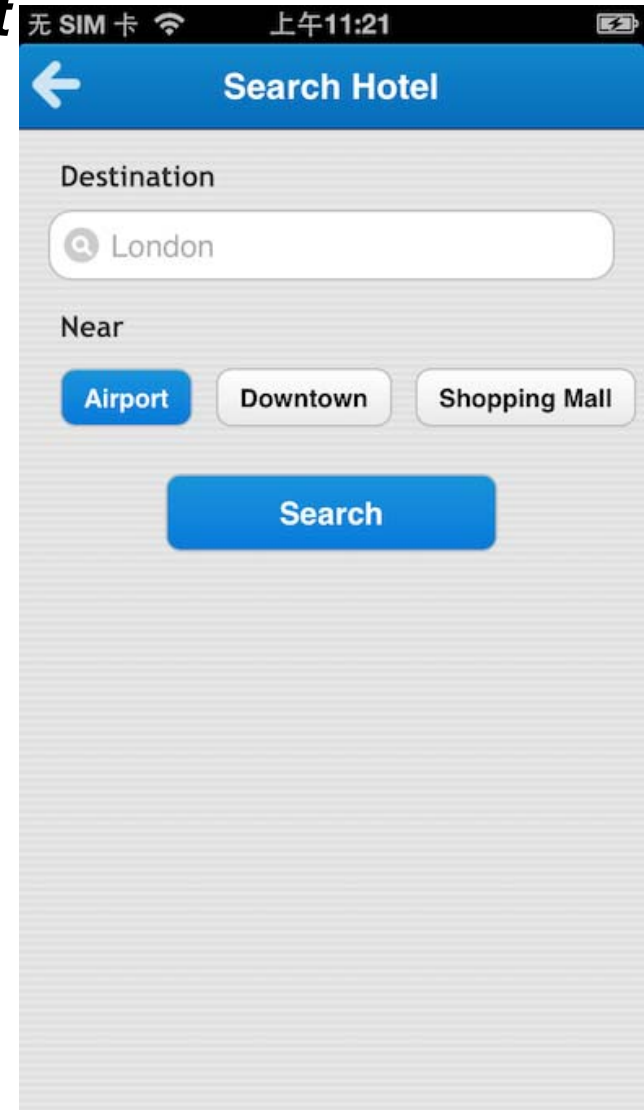
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