# Lab 4: Android Application, REST and SOAP Services

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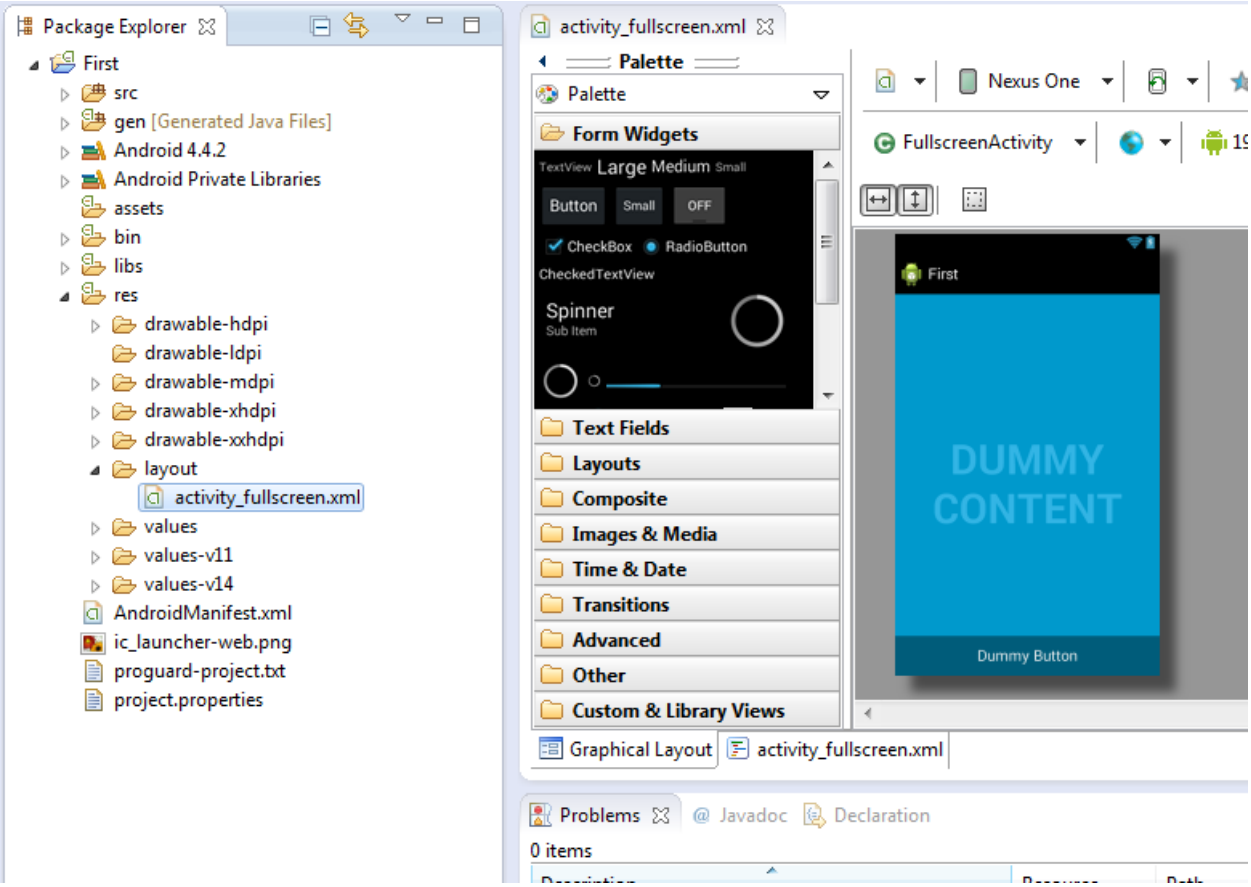
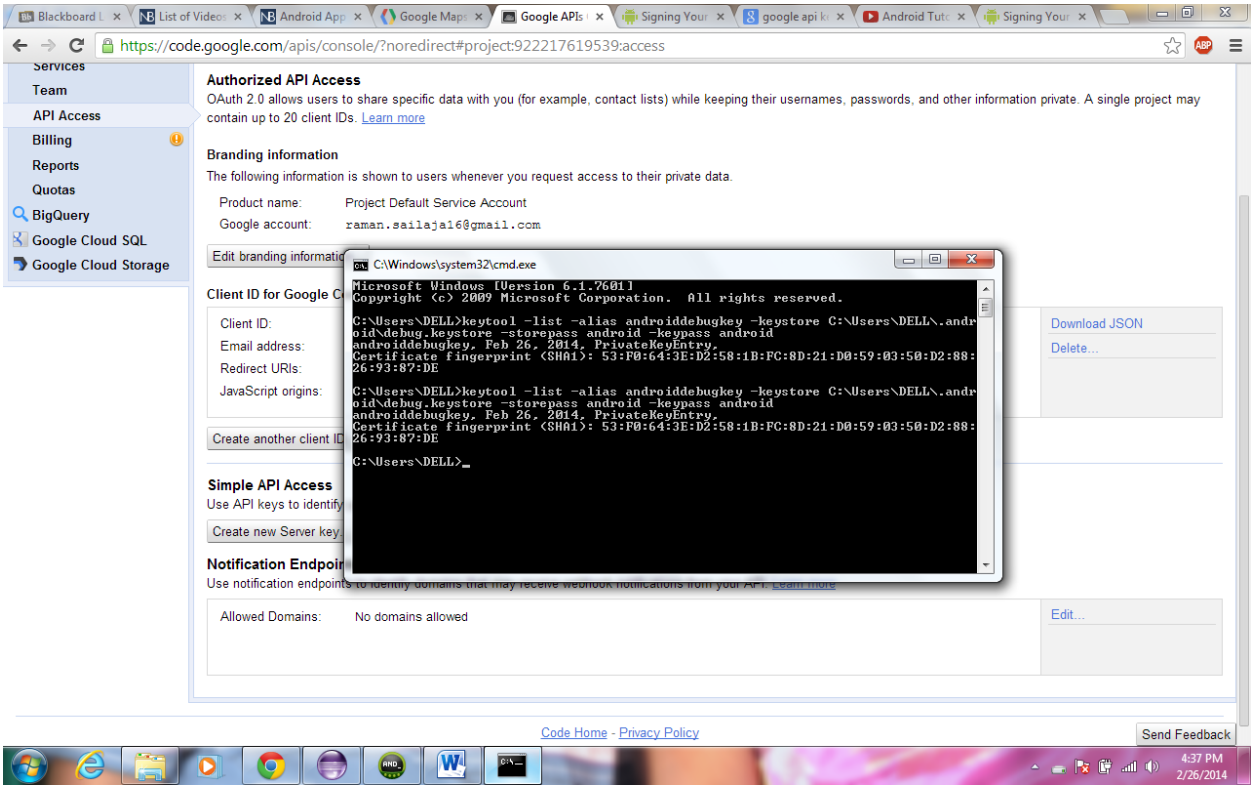
*16157493*

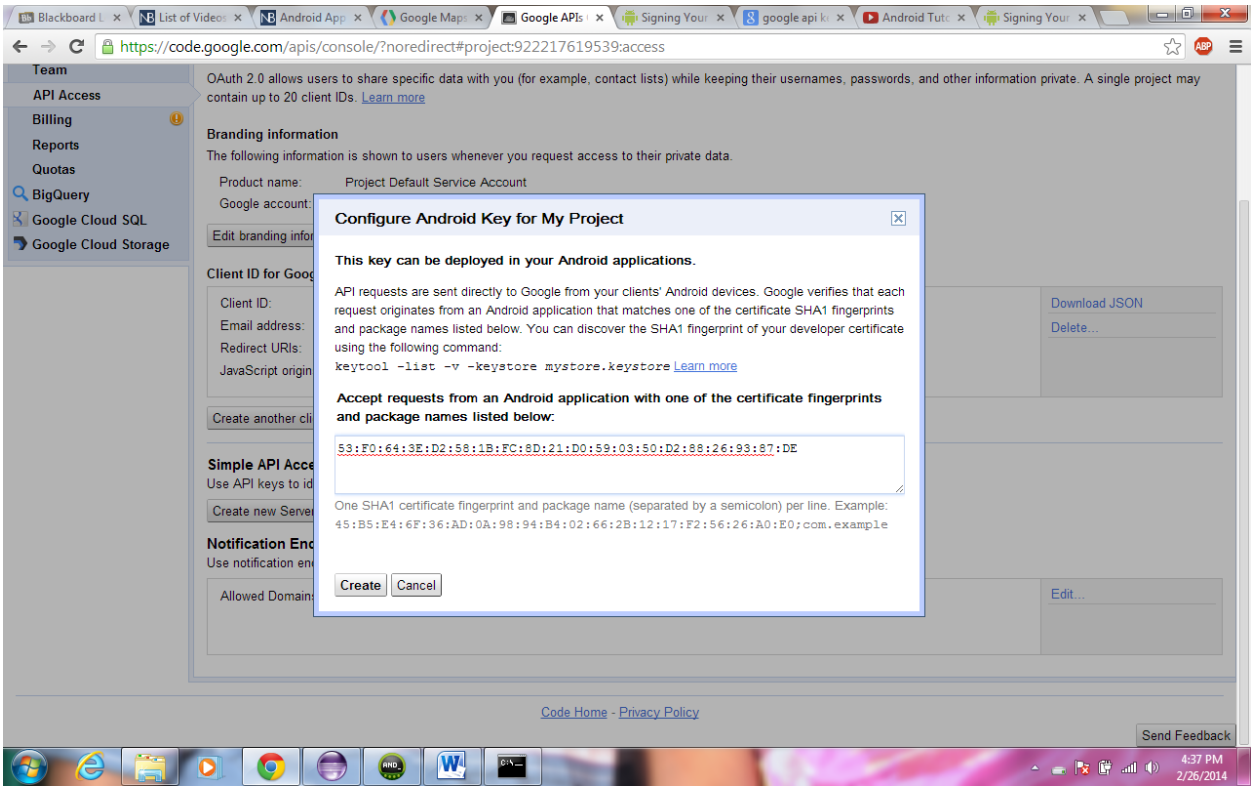
The first task was to develop an android application that would display google map. Google Map API was used for this purpose.




Firstly, Eclipse IDE is installed and using SDK Manager latest packages are downloaded and installed. Linear layout is chosen and androidManifest.xml, activity.xml and .java files are opened. A new android application projectnamely 'Map' is built.

Later, Google API features are loaded into the project. It is necessary to generate a Key to use the google services. So to generate a key command prompt is opened and "-tool…" is typed. As we press enter a random sequence of no.s is generated which becomes the authentication key. This key is entered in the google key generator under android key tab followed by app name.


https://code.google.com/apis/console/?noredirect#project:922217619539:access
Services
Team
API Access
Billing
Reports
Quotas
BigQuery
Google Cloud SQL
Google Cloud Storage
Authorized API Access
OAuth 2.0 allows users to share specific data with you (for example, contact lists) while keeping their usernames, passwords, and other information private. A single project may contain up to 20 client IDs. Learn more
Branding information
The following information is shown to users whenever you request access to their private data.
Product name: Project Default Service Account
Google account: raman.sailaja16@gmail.com
Edit branding information
Client ID for Google C
Client ID:
Email address:
Redirect URIs:
JavaScript origins:
Download JSON
Delete...
Create another client ID
Simple API Access
Use API keys to identify
Create new Server key
Notification Endpoi
Use notification endpoints to identify domains that may receive webhook notifications from your API. Learn more
Allowed Domains: No domains allowed
Edit...
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.
C:\Users\DELL>keytool -list -alias androiddebugkey -keystore C:\Users\DELL\.android\debug.keystore -storepass android -keypass android
androiddebugkey, Feb 26, 2014, PrivateKeyEntry,
Certificate fingerprint (SHA1): 53:F0:64:3E:D2:58:1B:FC:8D:21:D0:59:03:50:D2:88:26:93:87:DE
C:\Users\DELL>keytool -list -alias androiddebugkey -keystore C:\Users\DELL\.android\debug.keystore -storepass android -keypass android
androiddebugkey, Feb 26, 2014, PrivateKeyEntry,
Certificate fingerprint (SHA1): 53:F0:64:3E:D2:58:1B:FC:8D:21:D0:59:03:50:D2:88:26:93:87:DE
C:\Users\DELL>
Code Home - Privacy Policy
Send Feedback
4:37 PM
2/26/2014


https://code.google.com/apis/console/?noredirect#project:922217619539:access
Team
API Access
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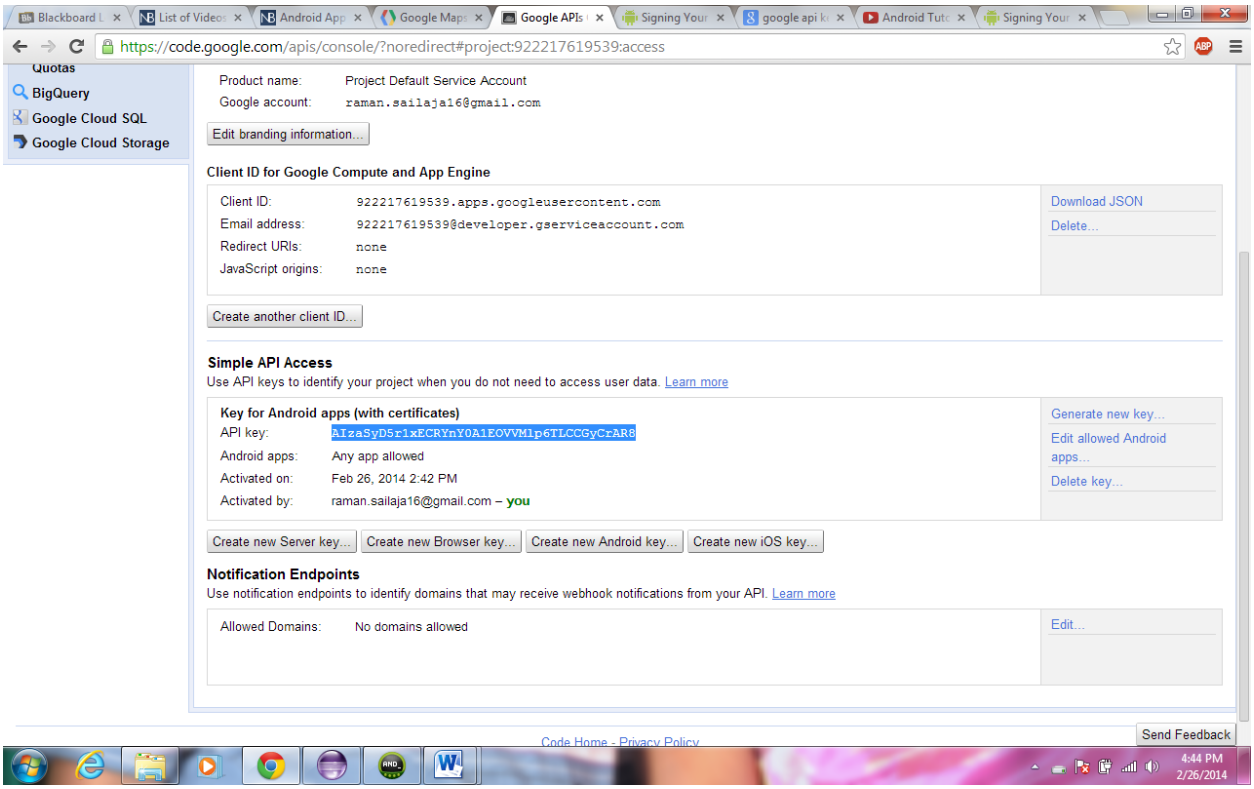
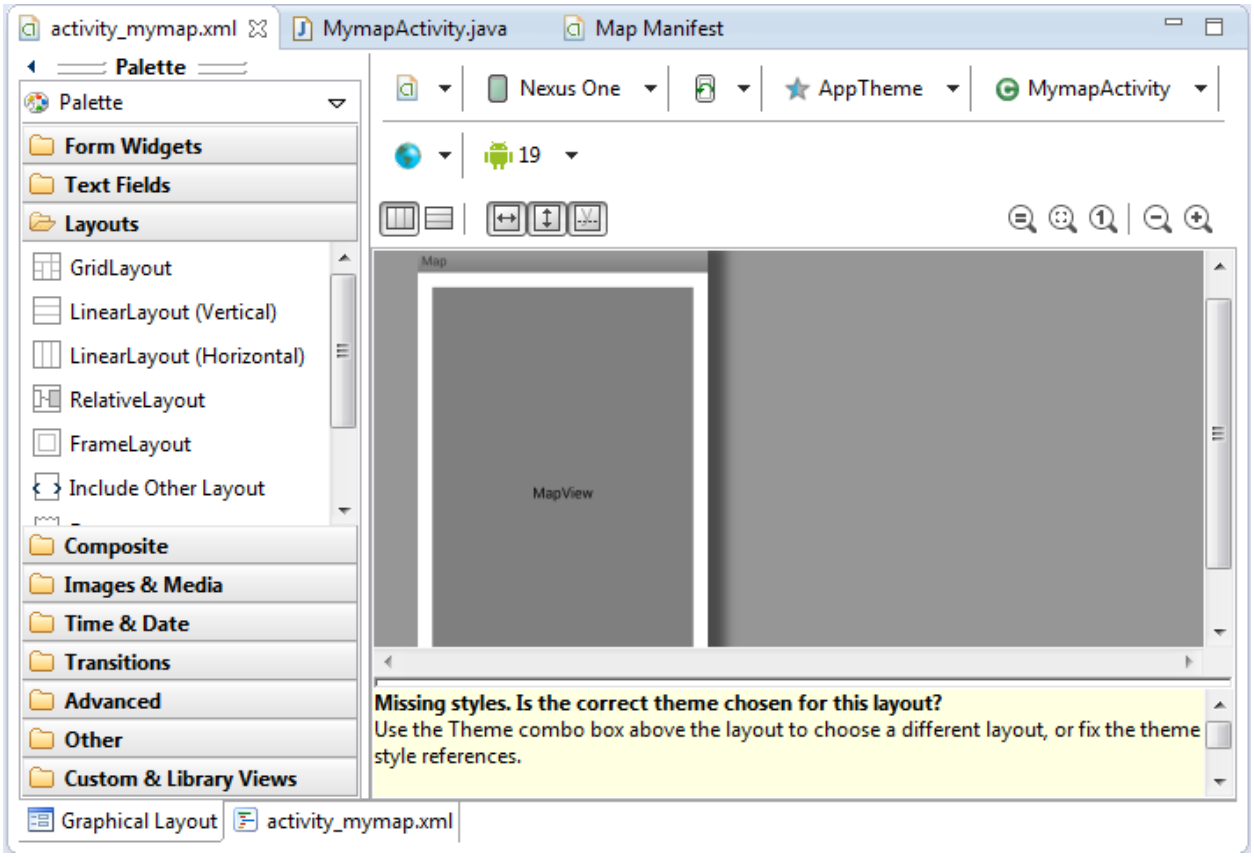
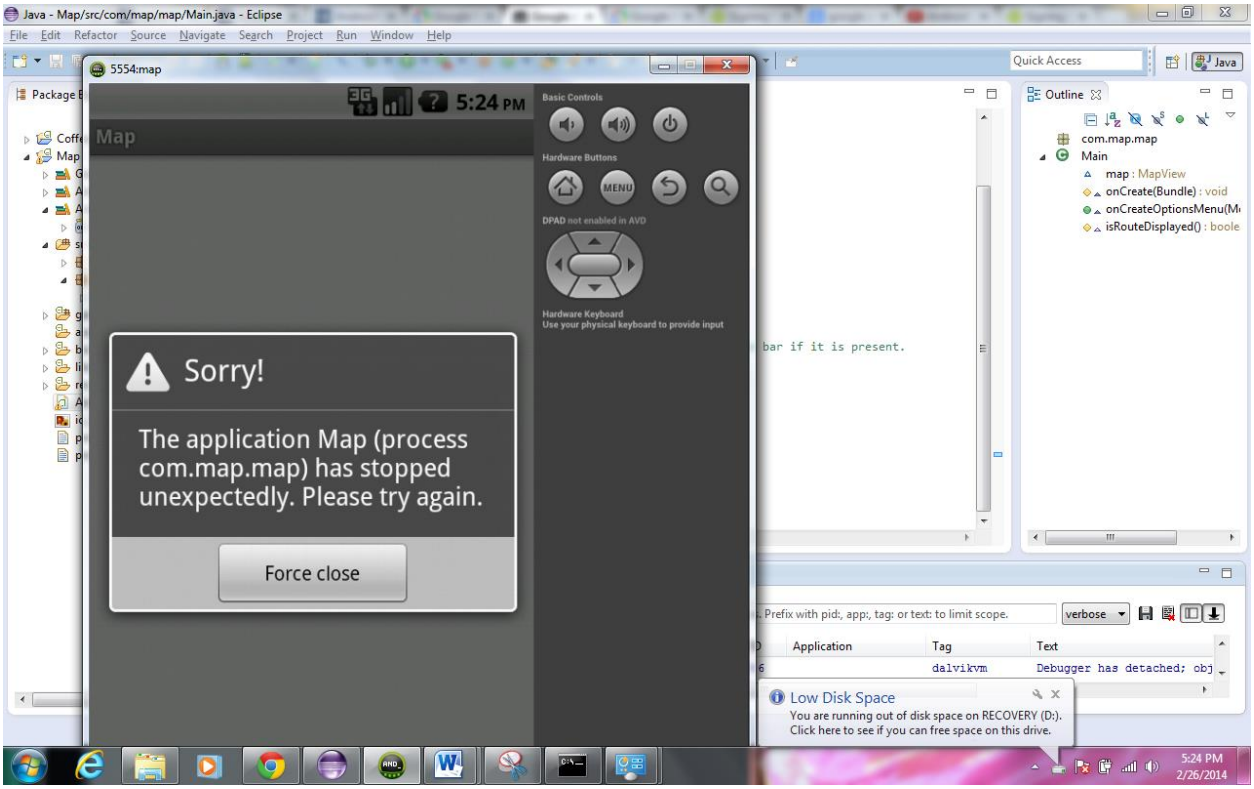
Product name: Project Default Service Account
Google account:
Edit branding infor
Client ID for Goog
Client ID:
Email address:
Redirect URIs:
JavaScript origin
Download JSON
Delete...
Create another cli
Simple API Acce
Use API keys to id
Create new Server
Notification End
Use notification en
Allowed Domain
Edit...
Configure Android Key for My Project
This key can be deployed in your Android applications.
API requests are sent directly to Google from your clients' Android devices. Google verifies that each request originates from an Android application that matches one of the certificate SHA1 fingerprints and package names listed below. You can discover the SHA1 fingerprint of your developer certificate using the following command:
keytool -list -v -keystore mystore.keystore Learn more
Accept requests from an Android application with one of the certificate fingerprints and package names listed below:
53:F0:64:3E:D2:58:1B:FC:8D:21:D0:59:03:50:D2:88:26:93:87:DE
One SHA1 certificate fingerprint and package name (separated by a semicolon) per line. Example:
45:B5:E4:6F:36:AD:0A:98:94:B4:02:66:2B:12:17:F2:56:26:A0:E0;com.example
Create
Cancel
Code Home - Privacy Policy
Send Feedback
4:37 PM
2/26/2014

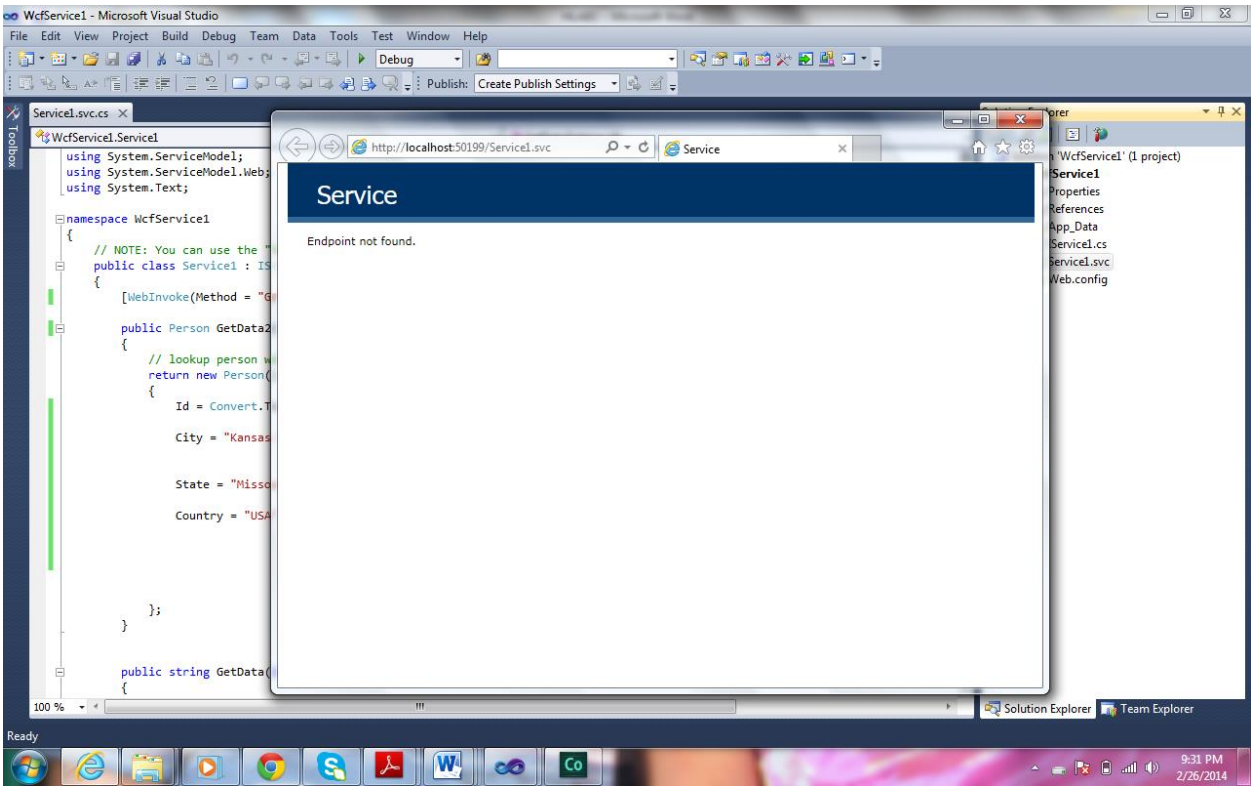



The generated key is added to the .xml code under activity.

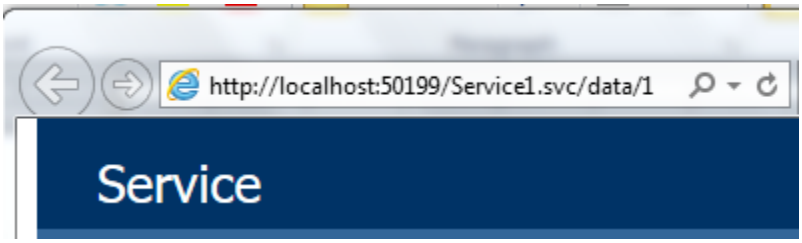

activity_mymap.xml
MymapActivity.java
Map Manifest
Palette
Palette
Form Widgets
Text Fields
Layouts
GridLayout
LinearLayout (Vertical)
LinearLayout (Horizontal)
RelativeLayout
FrameLayout
Include Other Layout
Composite
Images & Media
Time & Date
Transitions
Advanced
Other
Custom & Library Views
Nexus One
AppTheme
MymapActivity
19
Map
MapView
Missing styles. Is the correct theme chosen for this layout?
Use the Theme combo box above the layout to choose a different layout, or fix the theme style references.
Graphical Layout
activity_mymap.xml


Java - Map/src/com/map/map/Main.java - Eclipse
5554:map
5:24 PM
Map
Basic Controls
Hardware Buttons
MENU
DPAD not enabled in AVD
Hardware Keyboard
Use your physical keyboard to provide input
Sorry!
The application Map (process com.map.map) has stopped unexpectedly. Please try again.
Force close
Outline
com.map.map
Main
map : MapView
onCreate(Bundle) : void
Low Disk Space
You are running out of disk space on RECOVERY (D:).
Click here to see if you can free space on this drive.

**Rest Service:** A service that displays the names of city, state and country is designed. First of all, an IIS server is locally installed. Later, a source file is created in visual Studio. When the file is opened using a browser initially nothing appears.




Later when the url is appended with "/data/1"

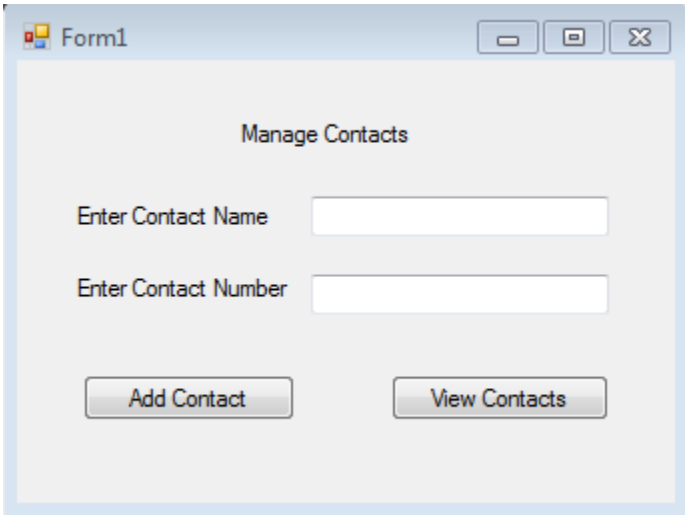



The following result appears. Similarly when several other entries can be retrieved by changing the data number entry.

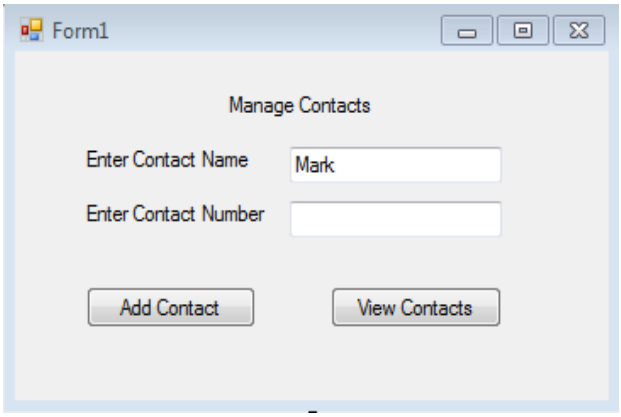

```
{"City":"Kansas City","Country":"USA","Id":1,"State":"Missouri"}
```

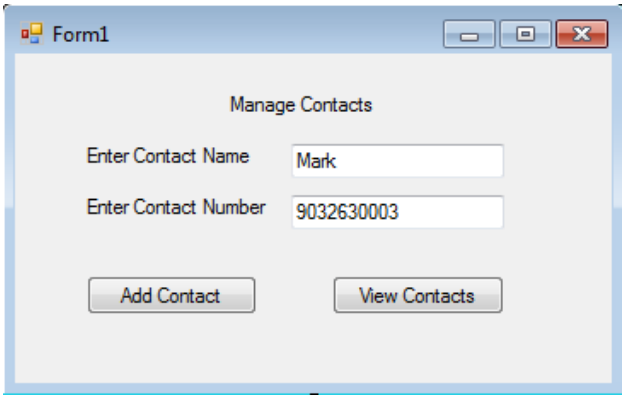
**Creating a Database:**

A service is created that takes names and phone no.s as inputs and updates a database. Using the MS Visual Studio, the following front end design screen is configured.




Then the desired information is entered into the text fileds



Then, when the “show Contacts” is clicked, the following is displayed.