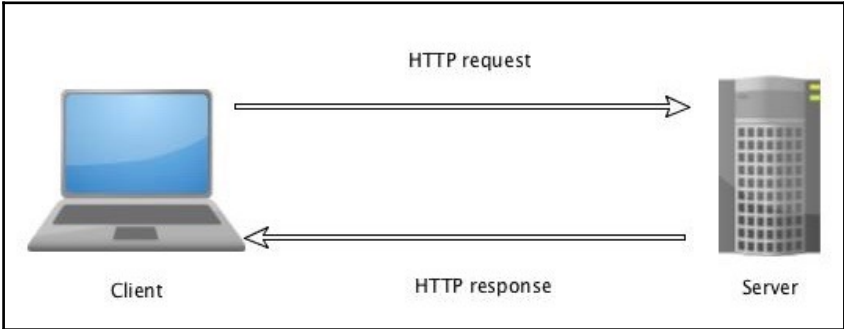
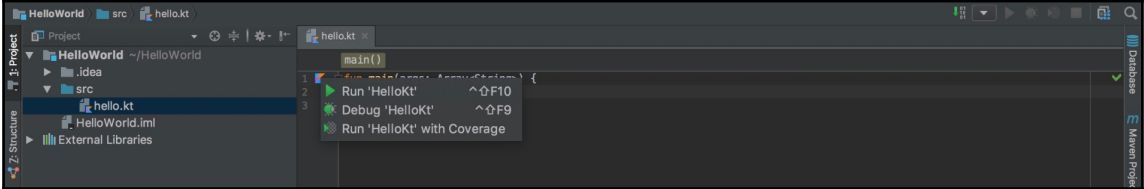
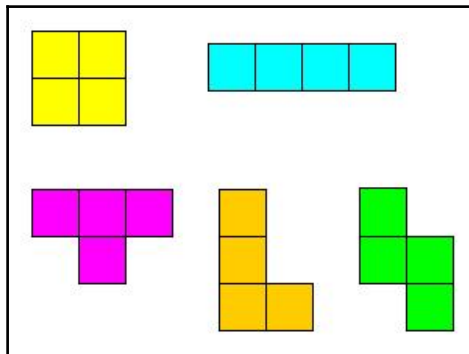
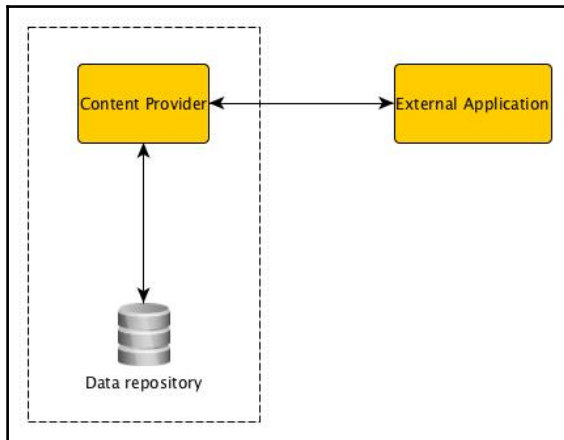
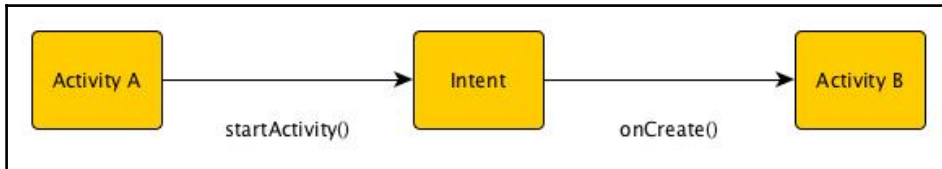


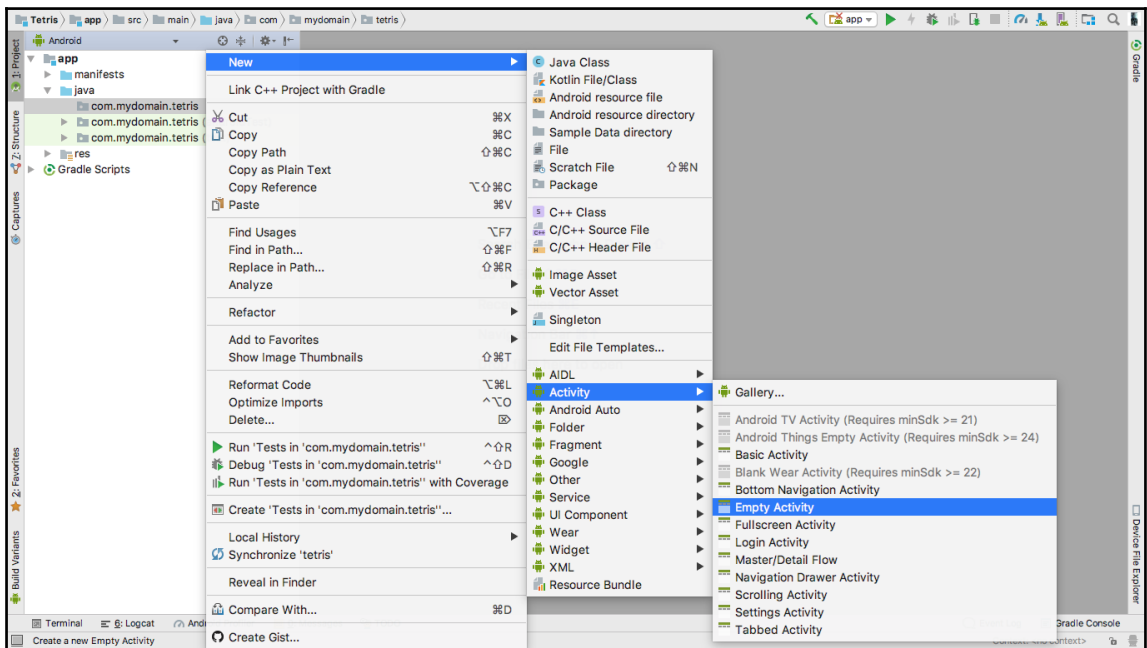
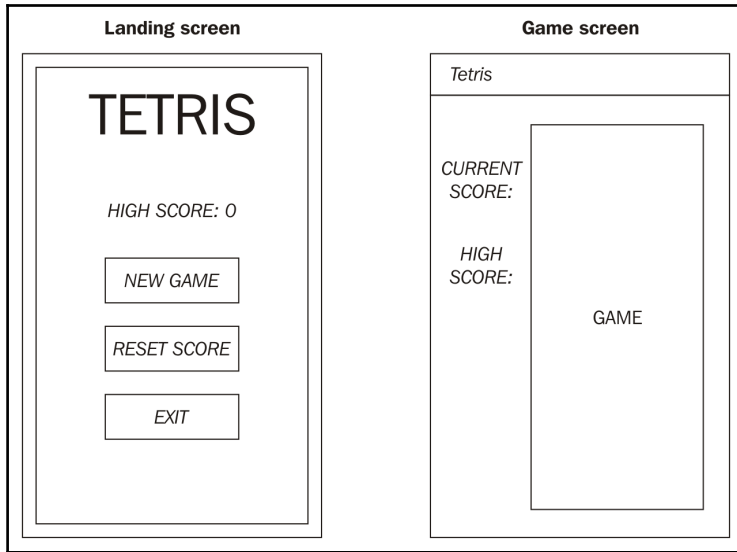
# Chapter 1: The Fundamentals

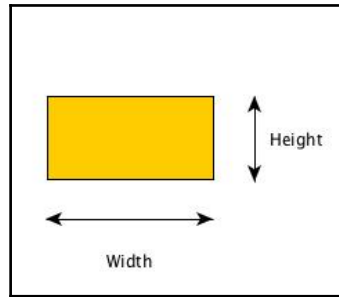
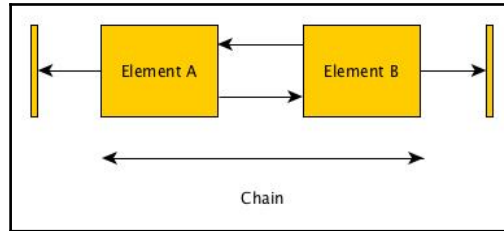
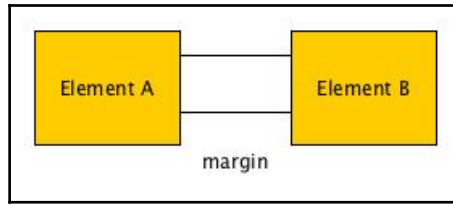


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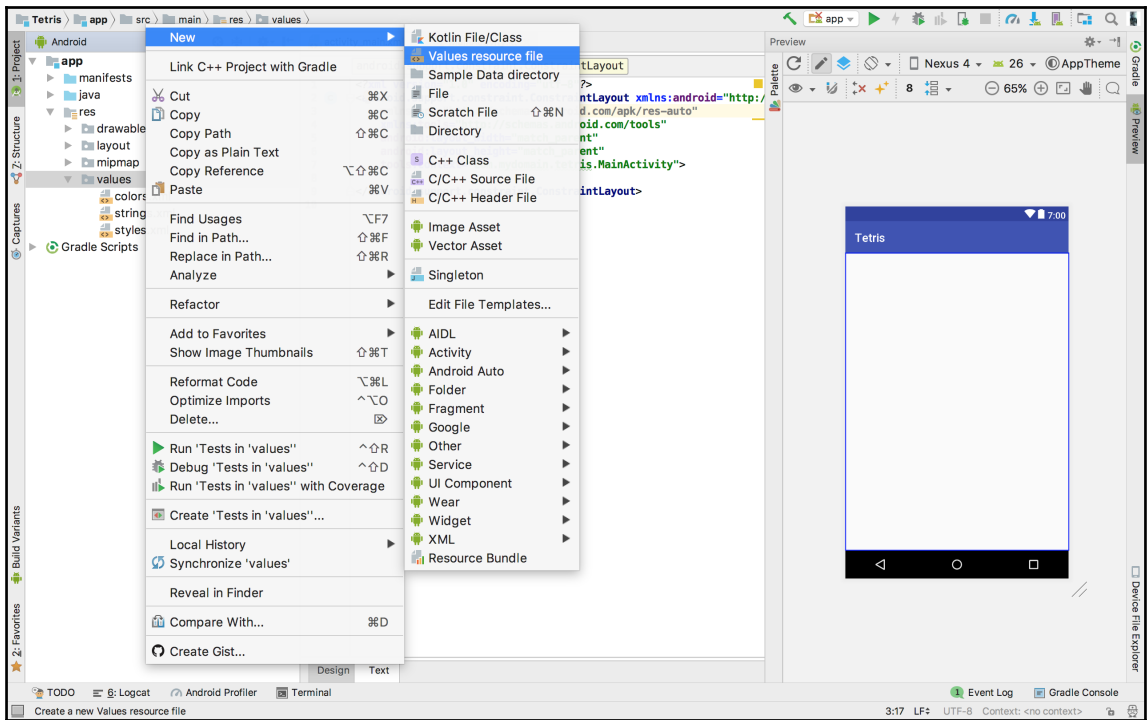
# Chapter 2: Building an Android Application – Tetris

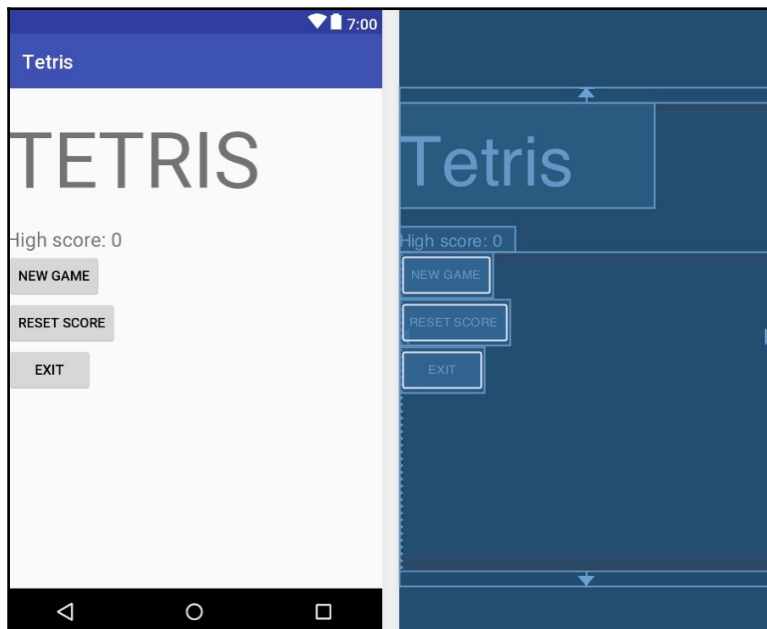
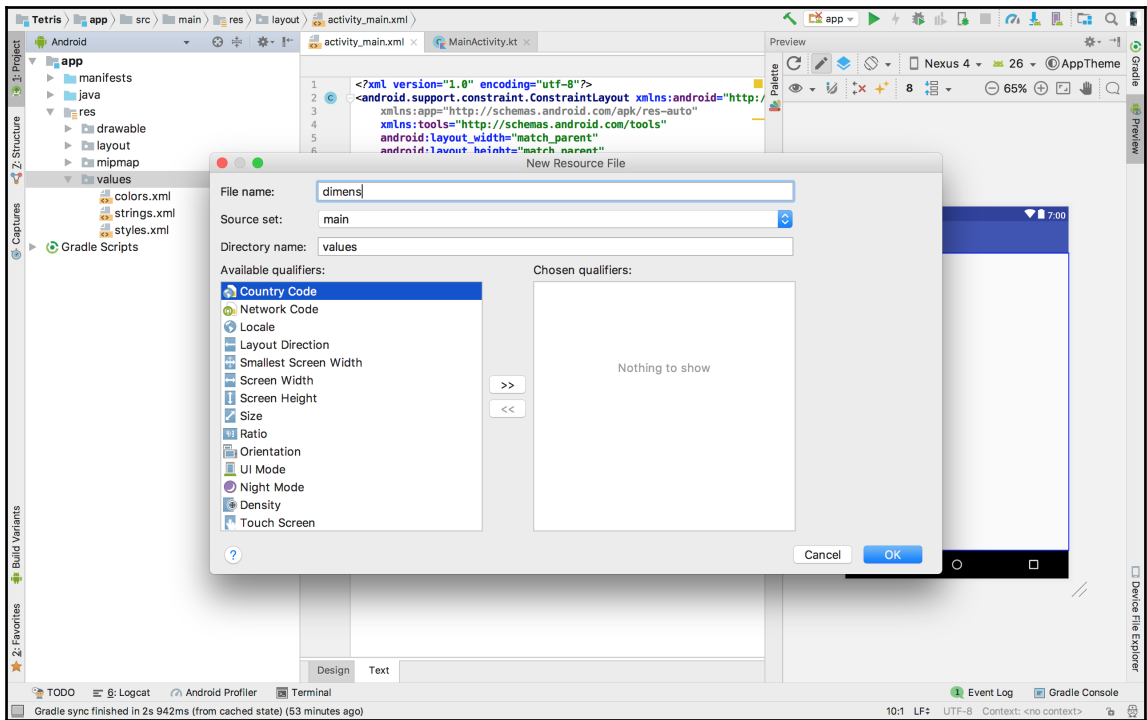


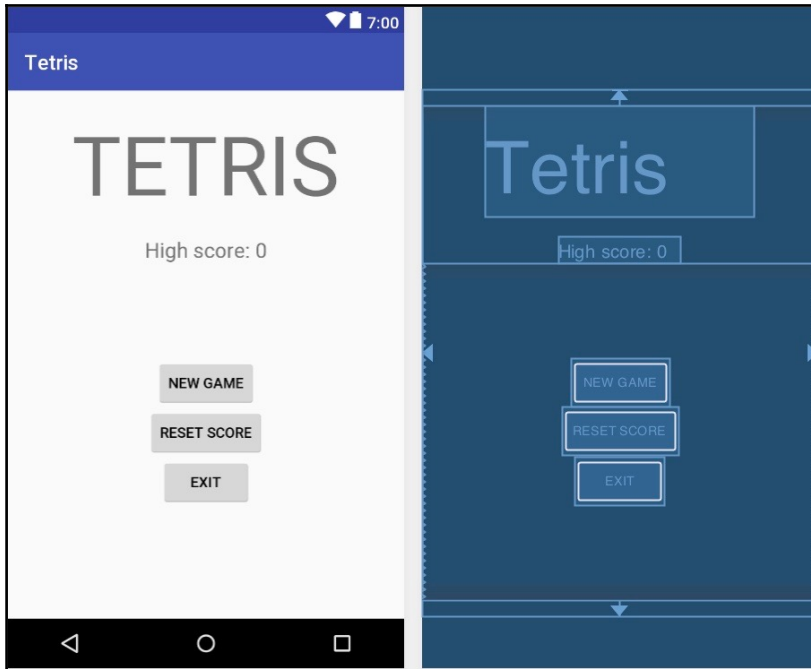


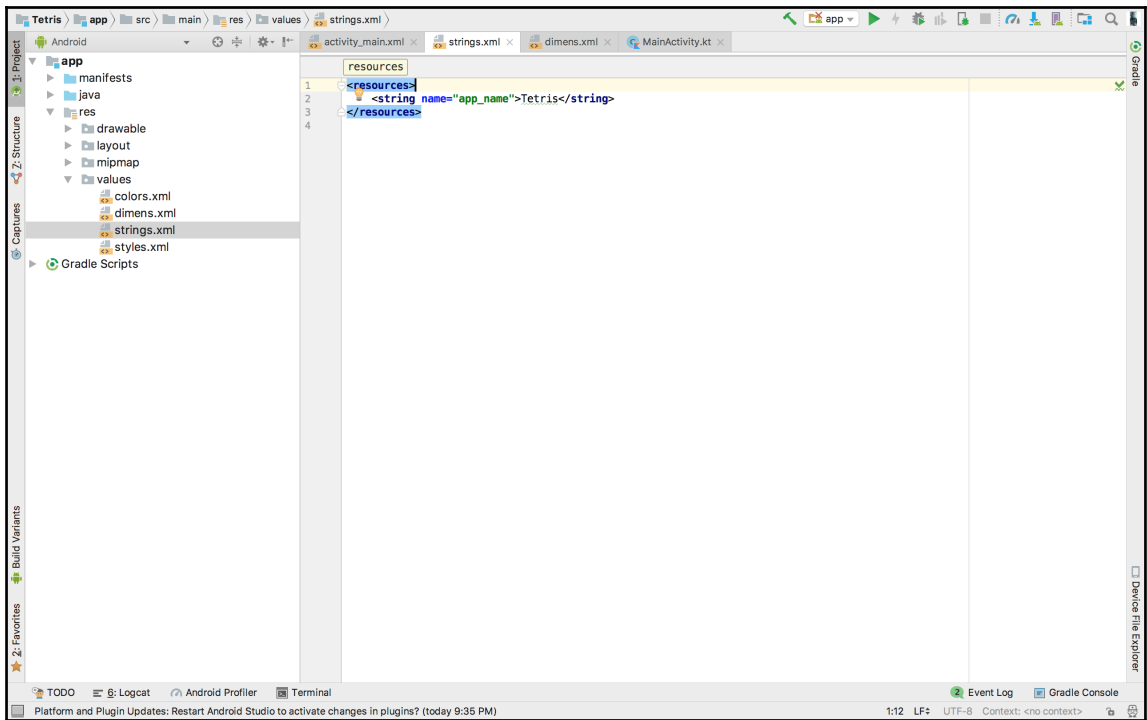


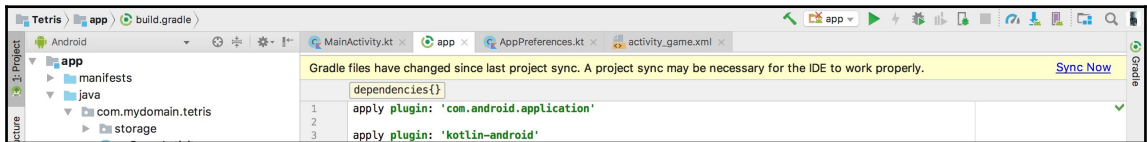
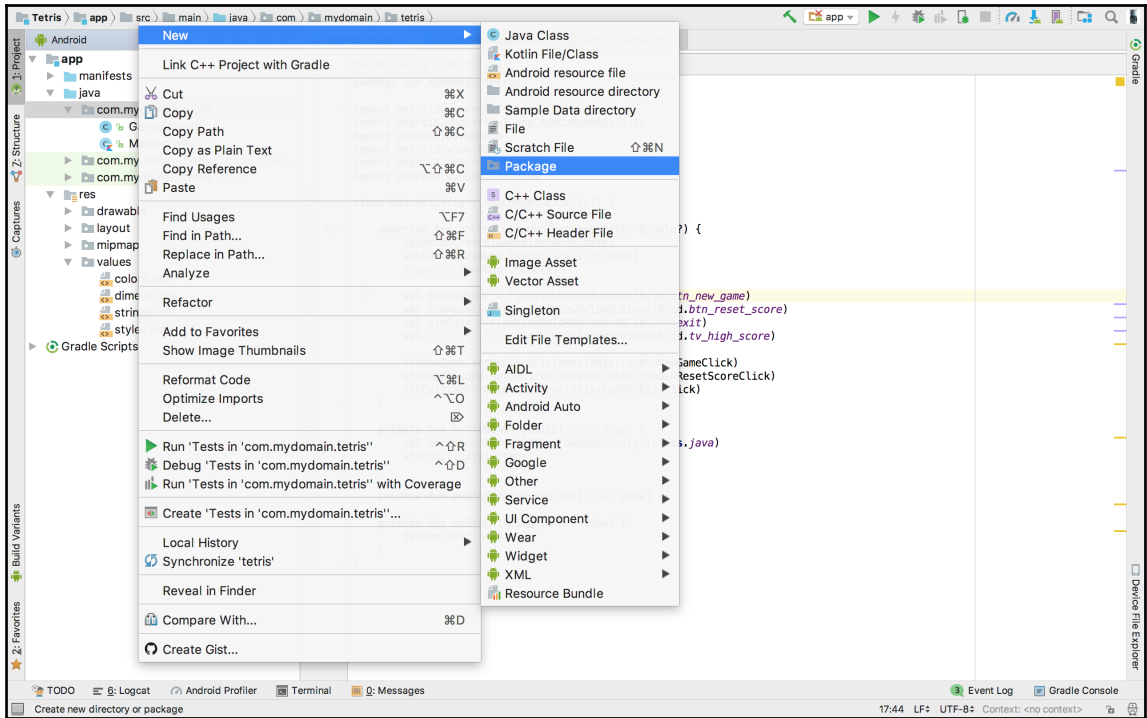


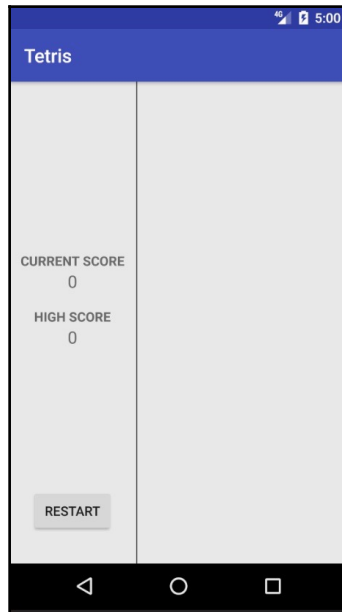
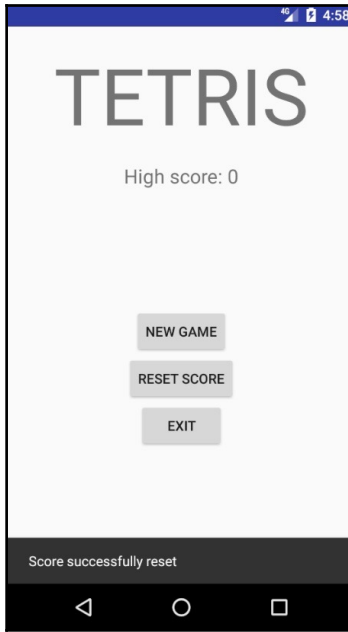






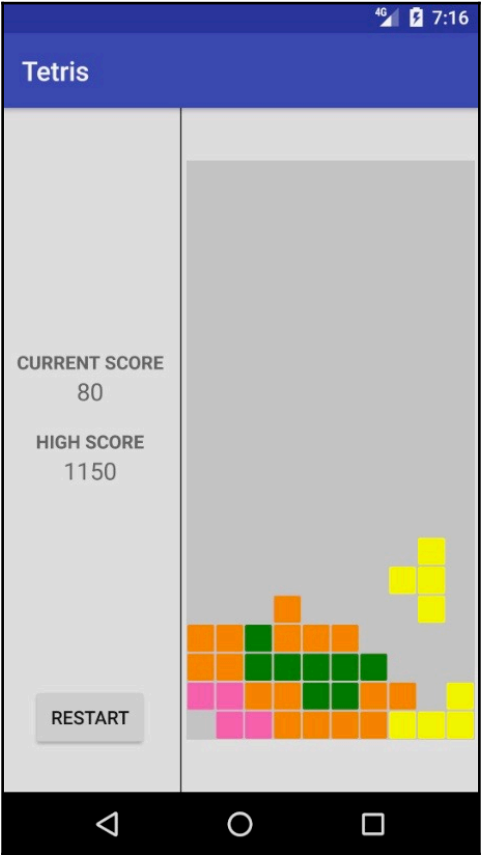


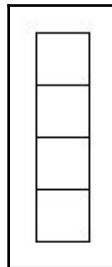
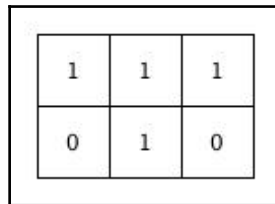
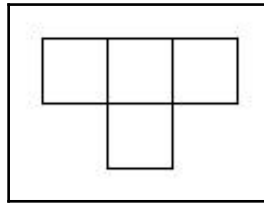
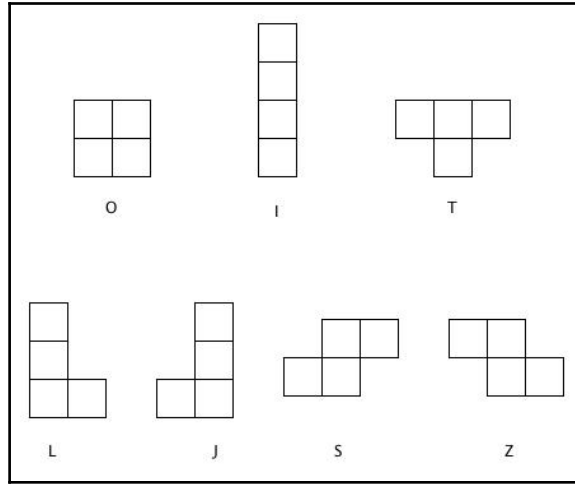




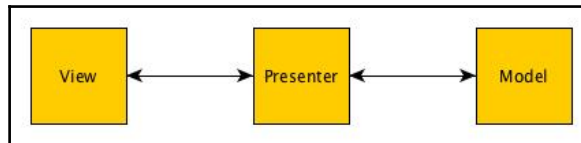
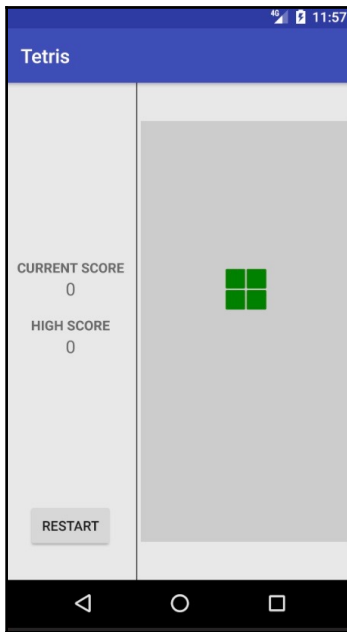
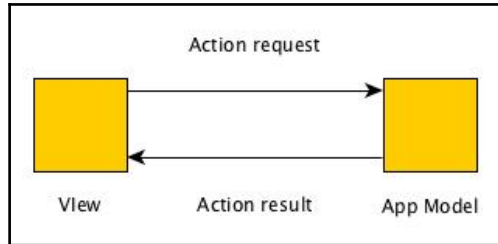
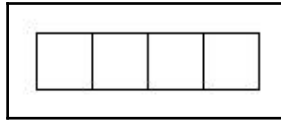
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# Chapter 3: Implementing Tetris Logic and Functionality



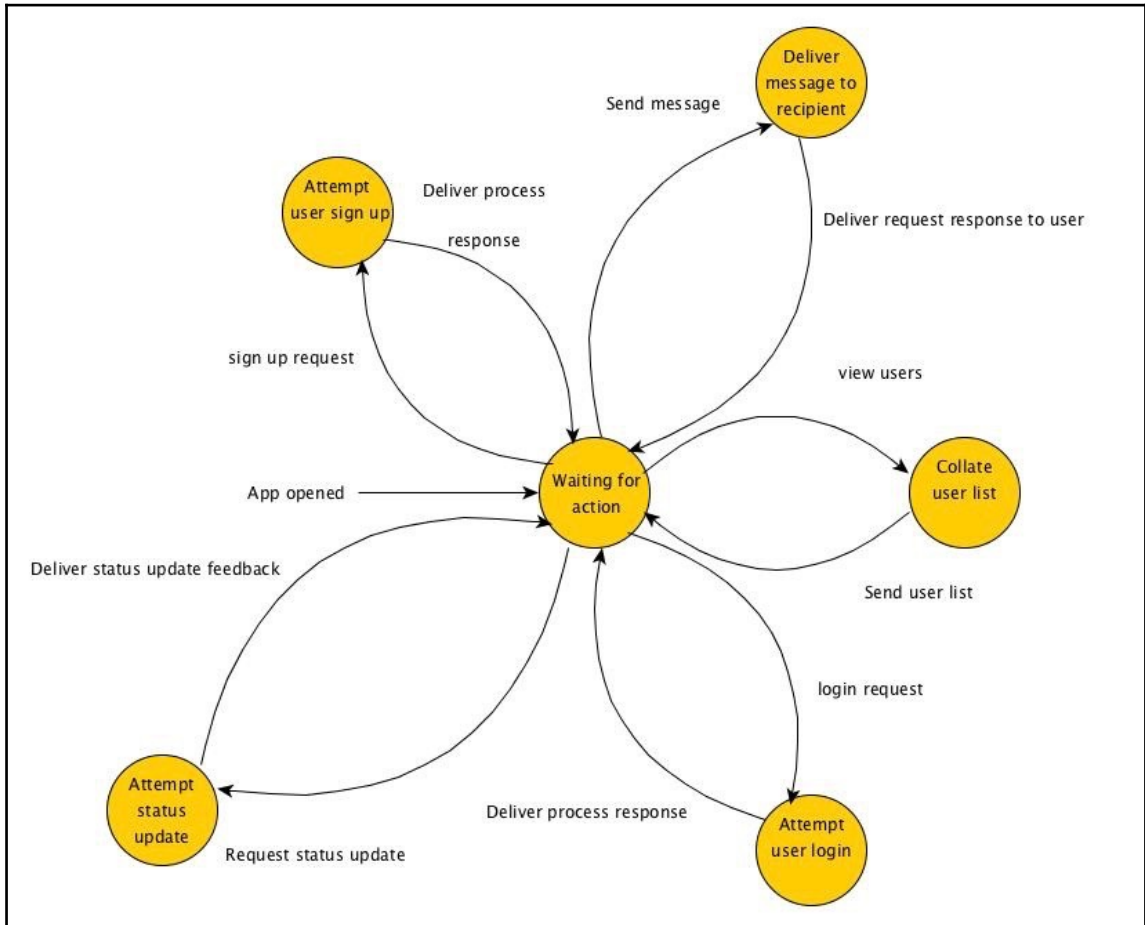


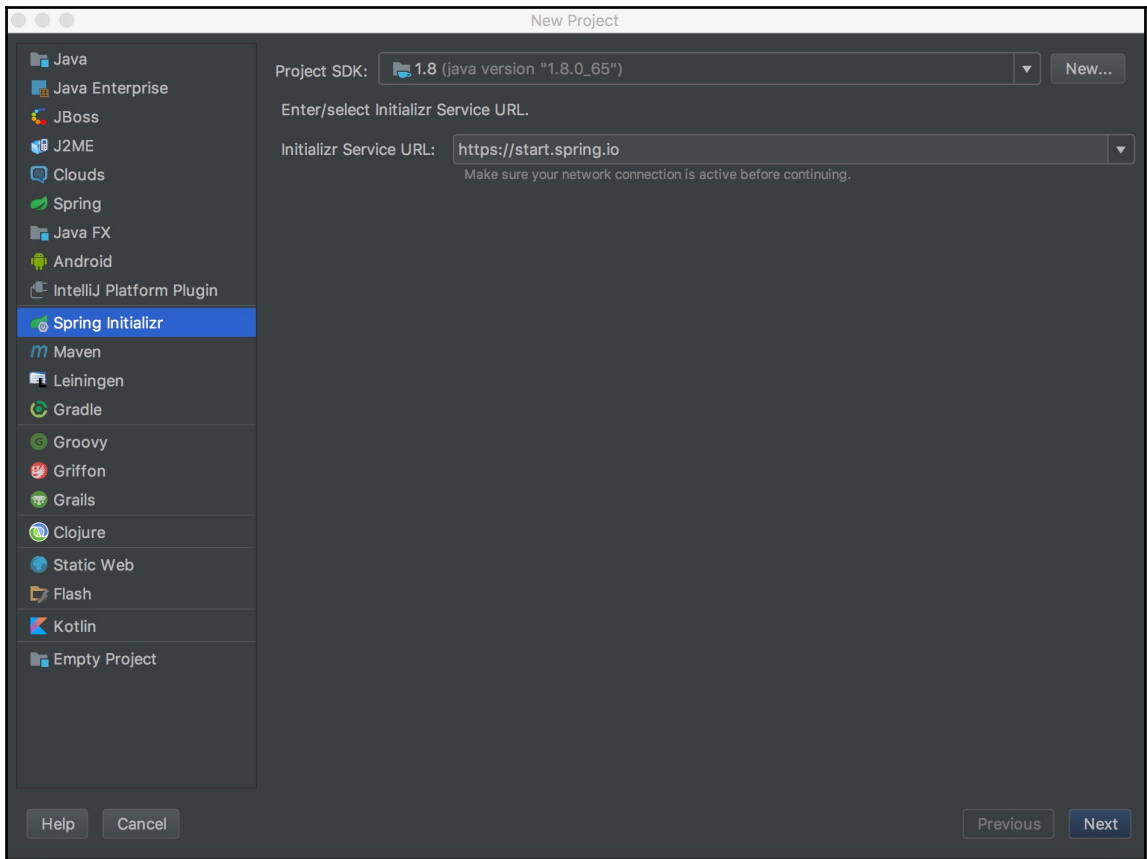




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# Chapter 4: Designing and Implementing the Messenger Backend with Spring Boot 2.0





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New Project

Group:

Artifact:

Type:  ▼

Packaging:  ▼

Java Version:  ▼

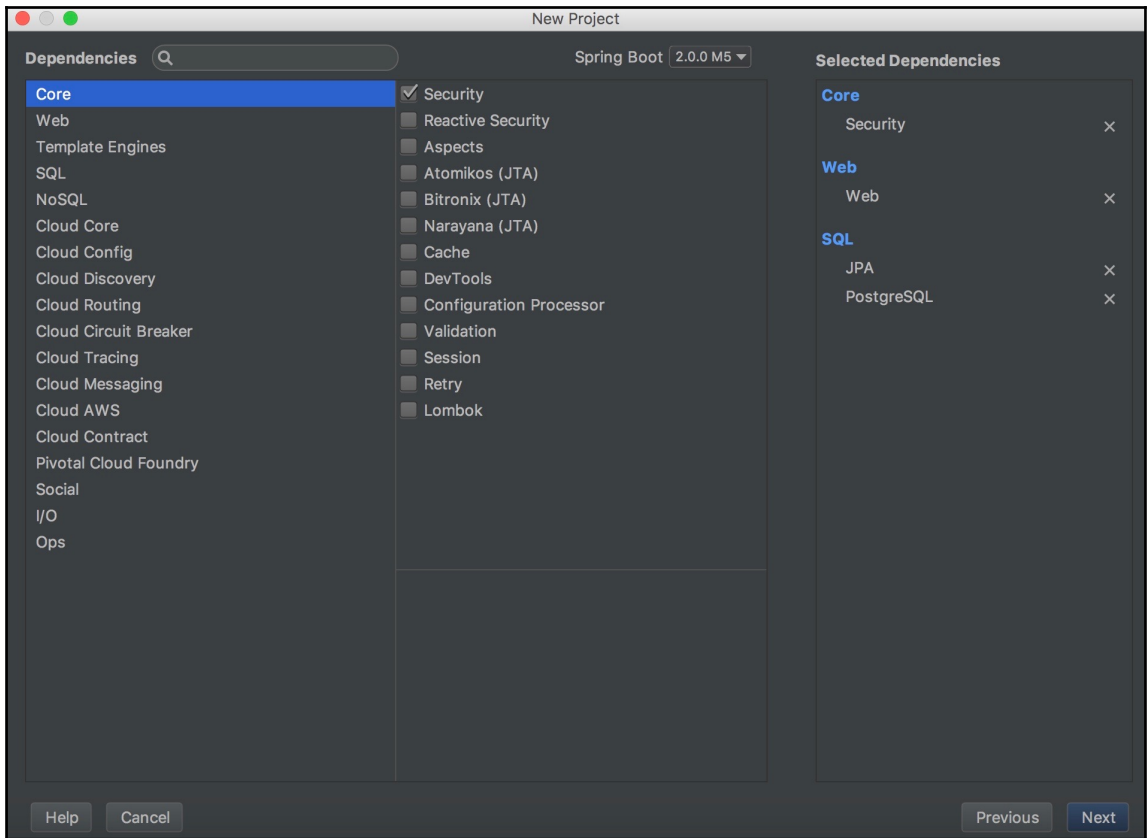
Language:  ▼

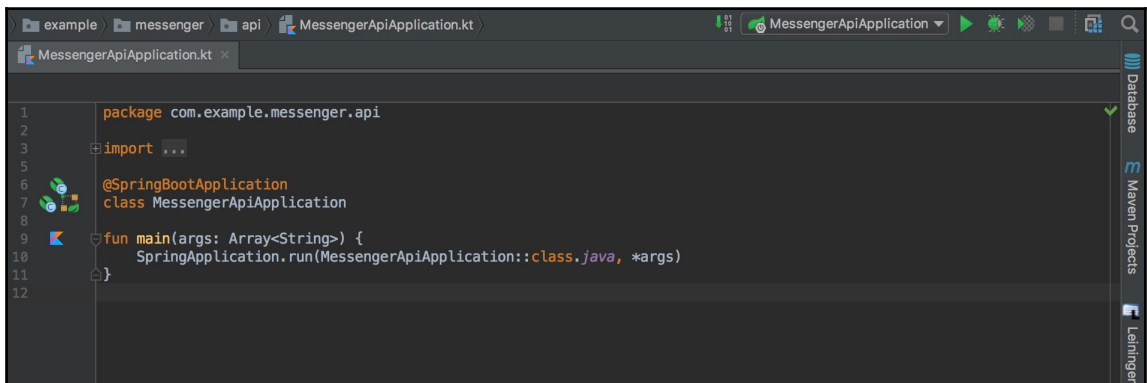
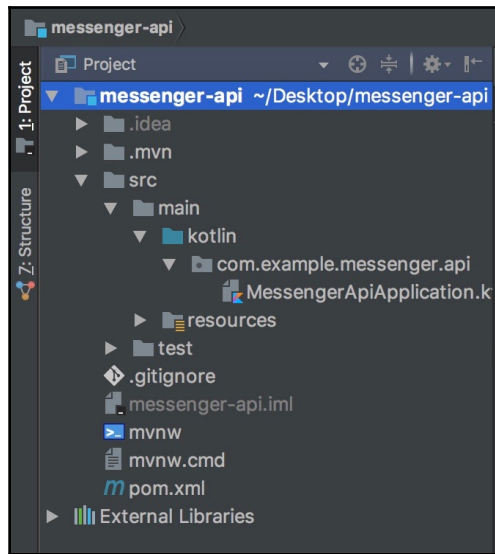
Version:

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Description:

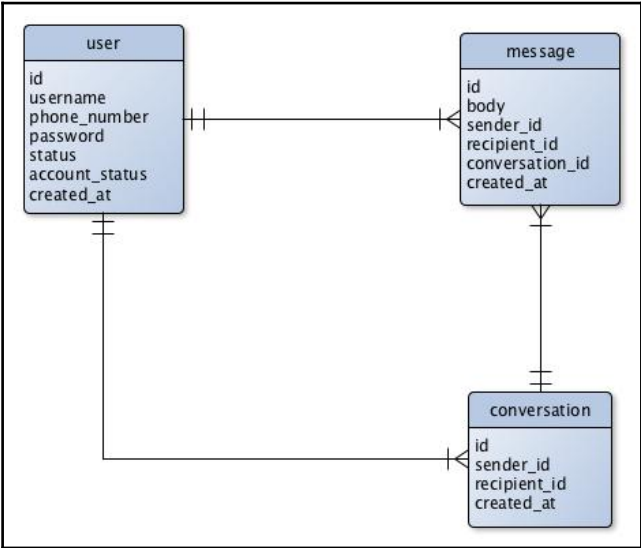
Package:





```
example > messenger > api > MessengerApiApplication.kt > com.example.messenger.api.MessengerApiApplicationKt
MessengerApiApplication.kt x application.properties x

1 package com.example.messenger.api
2
3 import ...
4
5
6 @SpringBootApplication
7 class MessengerApiApplication
8
9 fun main(args: Array<String>) {
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29 <dependencies>
30 <dependency>
31 <groupId>org.springframework.boot</groupId>
32 <artifactId>spring-boot-starter-data-jpa</artifactId>
33 </dependency>
34 <dependency>
35 <groupId>org.springframework.boot</groupId>
36 <artifactId>spring-boot-starter-security</artifactId>
37 </dependency>
38 <dependency>
39 <groupId>io.jsonwebtoken</groupId>
40 <artifactId>jjwt</artifactId>
41 <version>0.7.0</version>
42 </dependency>
43 <dependency>
44 <groupId>org.springframework.boot</groupId>
```

Maven projects need to be imported  
[Import Changes](#) [Enable Auto-Import](#)

Event Log

File Auto-Import (moments ago) 42:22 LF- UTF-8

The screenshot shows the Amazon RDS console dashboard. On the left is a navigation menu with items: Dashboard, Instances, Clusters, Snapshots, Reserved instances, External licenses, Subnet groups, Parameter groups, Option groups, Events, Event subscriptions, and Notifications. The main content area features the Amazon RDS logo, the title "Amazon Relational Database Service", and a descriptive paragraph: "Amazon Relational Database Service (Amazon RDS) makes it easy to set up, operate, and scale relational databases in the cloud. It provides cost-efficient and resizable capacity while managing time-consuming database administration tasks, freeing you up to focus on your applications and business." Below this text are two buttons: "Get Started Now" and "Getting Started Guide". At the bottom of the main area are three icons: a stack of databases with a plus sign, a database instance with a refresh icon, and a user profile with a gear icon. The footer contains "Feedback", "English (US)", and copyright information: "© 2008 - 2017, Amazon Web Services, Inc. or its affiliates. All rights reserved. Privacy Policy Terms of Use".





Specify DB details


---


Step 3  
Configure advanced settings


### Engine options


Amazon Aurora  


MySQL  


MariaDB  


PostgreSQL  


Oracle  


Microsoft SQL Server  


**PostgreSQL**

PostgreSQL is a powerful, open-source object-relational database system with a strong reputation of reliability, stability, and correctness.

- High reliability and stability in a variety of workloads.
- Advanced features to perform in high-volume environments.
- Vibrant open-source community that releases new features multiple times per year.
- Supports multiple extensions that add even more functionality to the database.
- The most Oracle-compatible open-source database.

Only enable options eligible for RDS Free Usage Tier [info](#)
Cancel **Next**

Feedback English (US)
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RDS > Launch DB instance

✔ Your DB instance is being created.

Note: Your instance may take a few minutes to launch.

#### Connecting to your DB instance

Once Amazon RDS finishes provisioning your DB instance, you can use a SQL client application or utility to connect to the instance.

[Learn about connecting to your DB instance](#)

All DB instances
**View DB instance details**

Feedback English (US)
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### Connect

<p>Endpoint messenger-api.c4cktbbmcj8s.us-east-1.rds.amazonaws.com</p> <p>Port 5432</p>	<p>Publicly accessible Yes</p> <p>Master username [REDACTED]</p>
---	--

Security group (1)

< 1 > ⚙

Security group	Type	Rule
rds-launch-wizard	CIDR/IP	[REDACTED]

Elastic Beanstalk
Create New Environment

**i** Try the new design  
We're testing a new design for the environment creation wizard. [Opt in now](#) to try it and let us know what you think!

Application Info

**New Environment**

### New Environment

AWS Elastic Beanstalk has two types of environment tiers to support different types of web applications. Web servers are standard applications that listen for and then process HTTP requests, typically over port 80. Workers are specialized applications that have a background processing task that listens for messages on an Amazon SQS queue. Worker applications post those messages to your application by using HTTP.

**Web Server Environment**

Provides resources for an AWS Elastic Beanstalk web server in either a single instance or load-balancing, auto scaling environment. [Learn more](#)

[Create web server](#)

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**Worker Environment\***

Provides resources for an AWS Elastic Beanstalk worker application in either a single instance or load-balancing, auto scaling environment. [Learn more](#)

[Create worker](#)

Cancel [Done](#)

Feedback English (US)
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Elastic Beanstalk Create New Environment

**Try the new design** ×

We're testing a new design for the environment creation wizard. [Opt in now](#) to try it and let us know what you think!

- Application Info
- New Environment
- Environment Type**
- Application Version
- Environment Info
- Additional Resources
- Configuration Details
- Environment Tags
- Permissions
- Review Information

### Environment Type

Choose the platform and type of environment to launch.

Predefined configuration:  Looking for a different platform? [Let us know.](#)

AWS Elastic Beanstalk will create an environment running Tomcat 8 Java 8 on 64bit Amazon Linux 2017.03 v2.6.5. [Change platform version.](#)

Environment type:  [Learn more](#)

Cancel Previous Next

Elastic Beanstalk Create New Environment

**Try the new design** ×

We're testing a new design for the environment creation wizard. [Opt in now](#) to try it and let us know what you think!

- Application Info
- New Environment
- Environment Type
- Application Version**
- Environment Info
- Additional Resources
- Configuration Details
- Environment Tags
- Permissions
- Review Information

### Application Version

Select a source for your application version.

Source:  Sample application

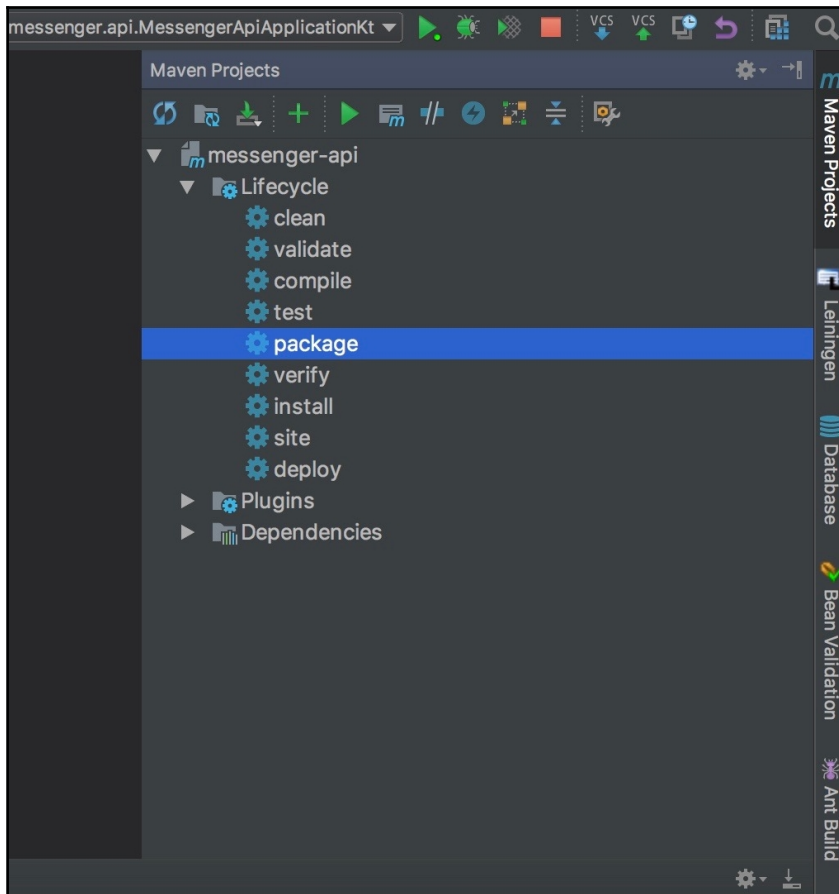
Upload your own ([Learn more](#))

Choose File messenger-a...NAPSHOT.jar

S3 URL

(e.g. <https://s3.amazonaws.com/s3Bucket/s3Key>)

Cancel Previous Next

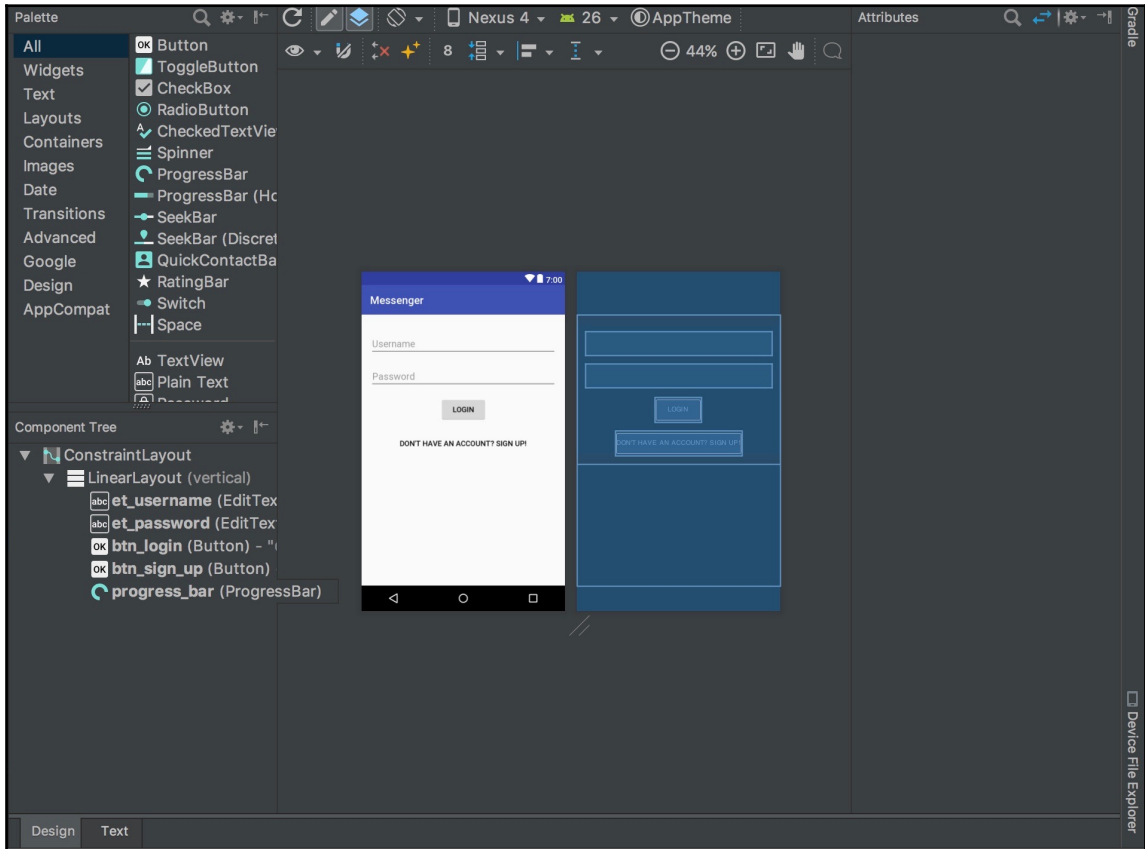


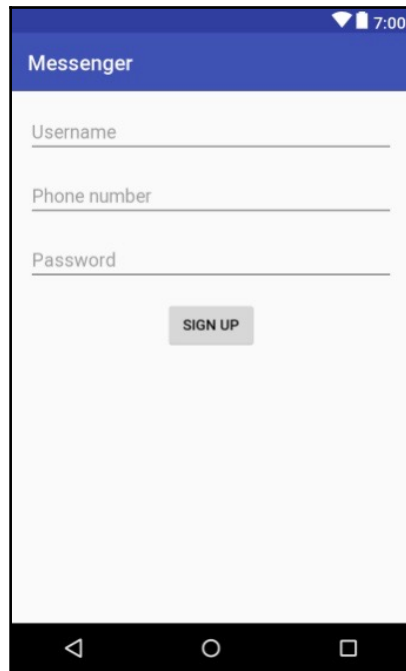
#### Environment Info

<b>Environment name</b>	messengerApi-env
<b>Environment URL</b>	http://messengerapi-env.us-east-1.elasticbeanstalk.com
<b>Description</b>	REST API for the Messenger app

---

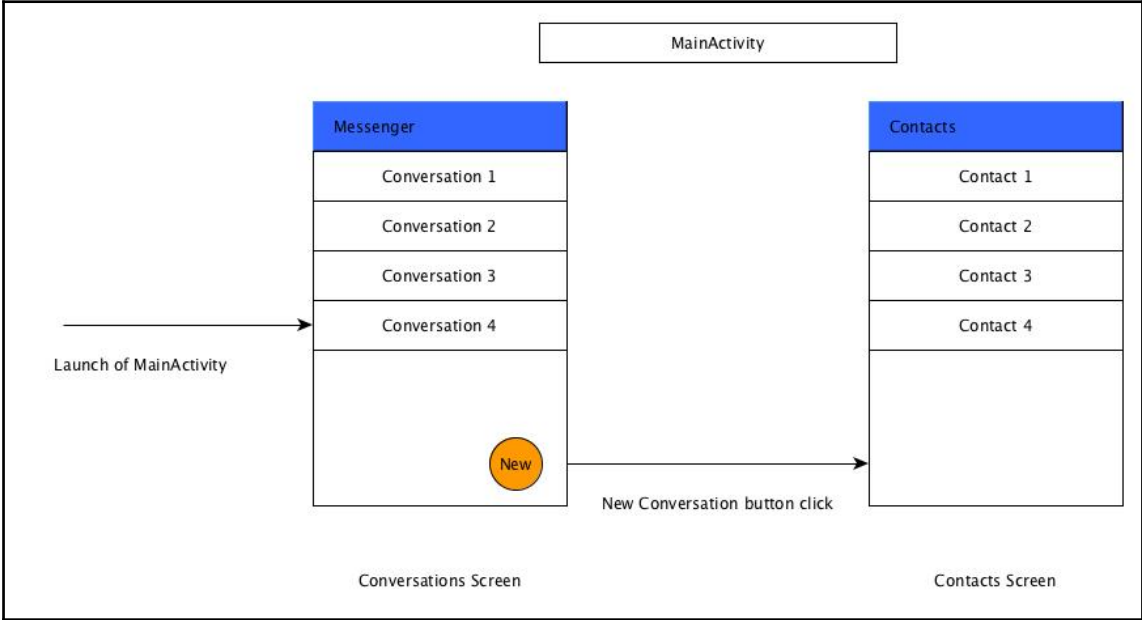
# Chapter 5: Building the Messenger Android App – Part I

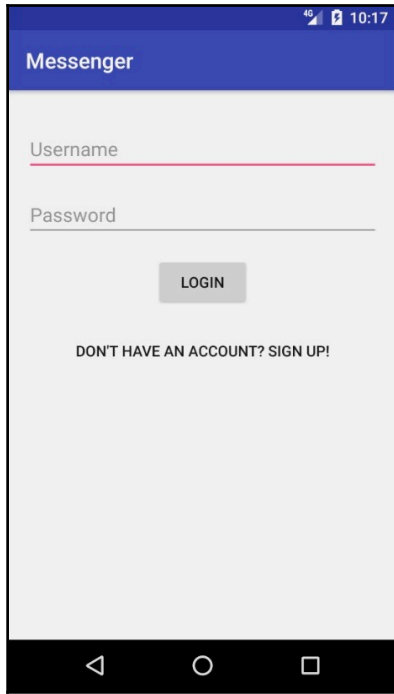




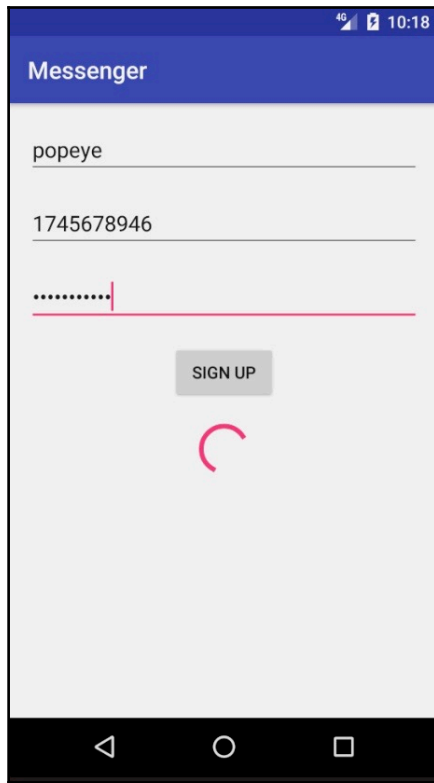
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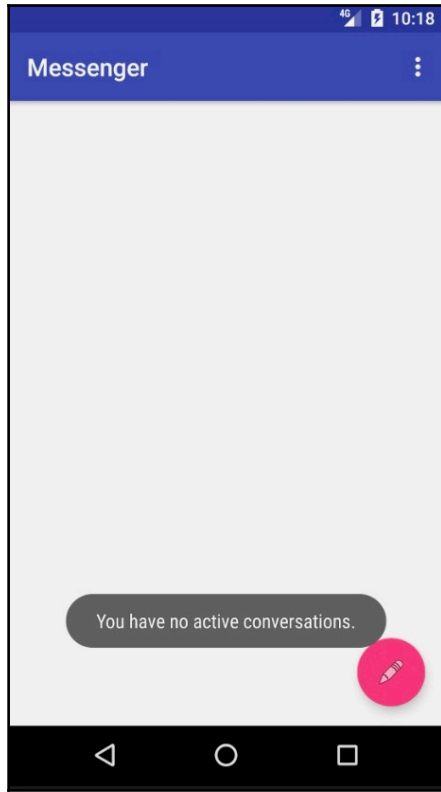
# Chapter 6: Building the Messenger Android App – Part II

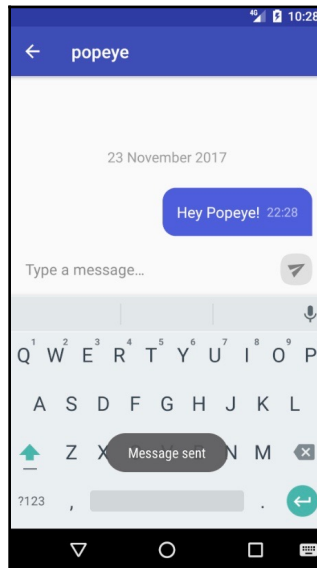
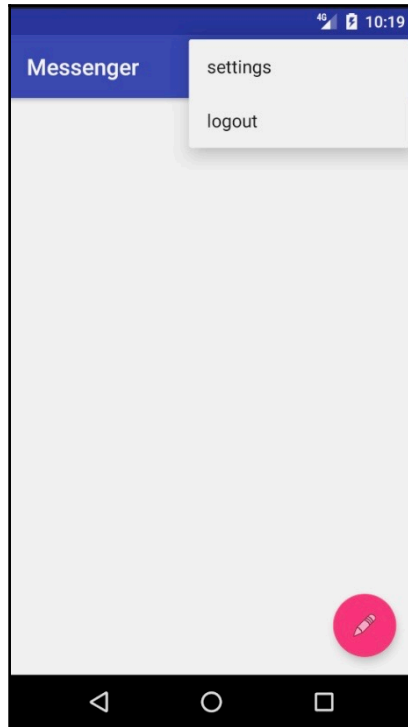


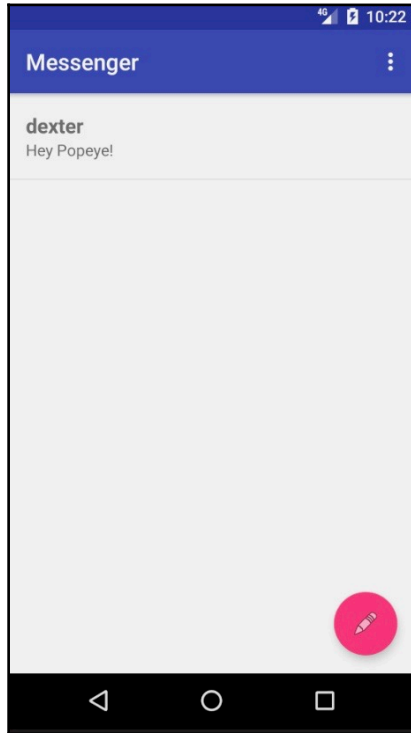
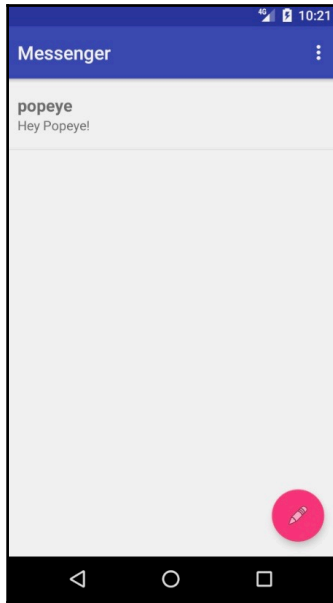


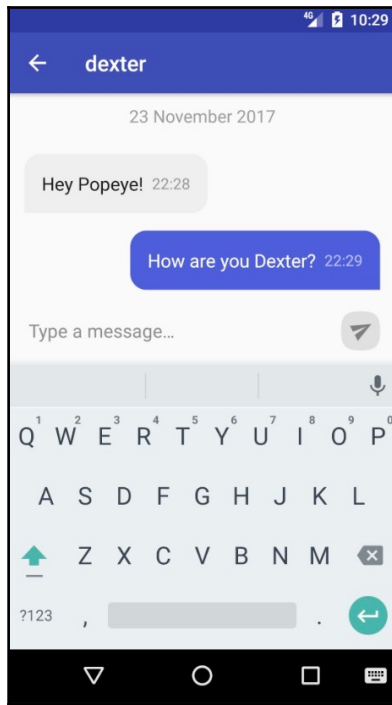


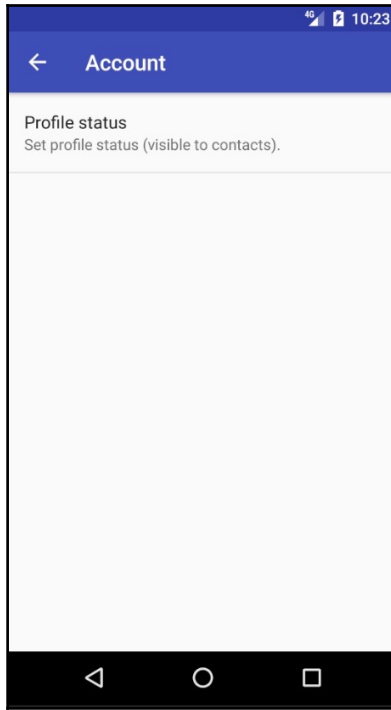


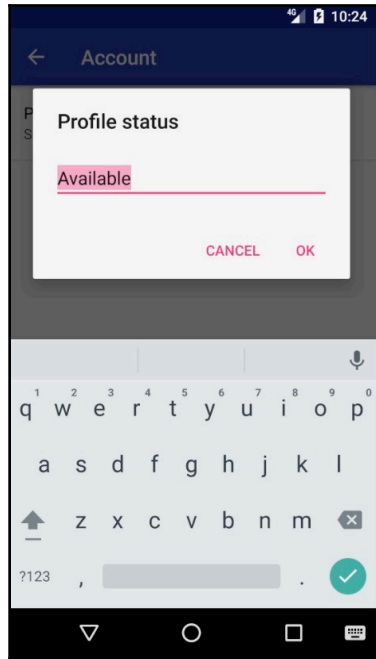






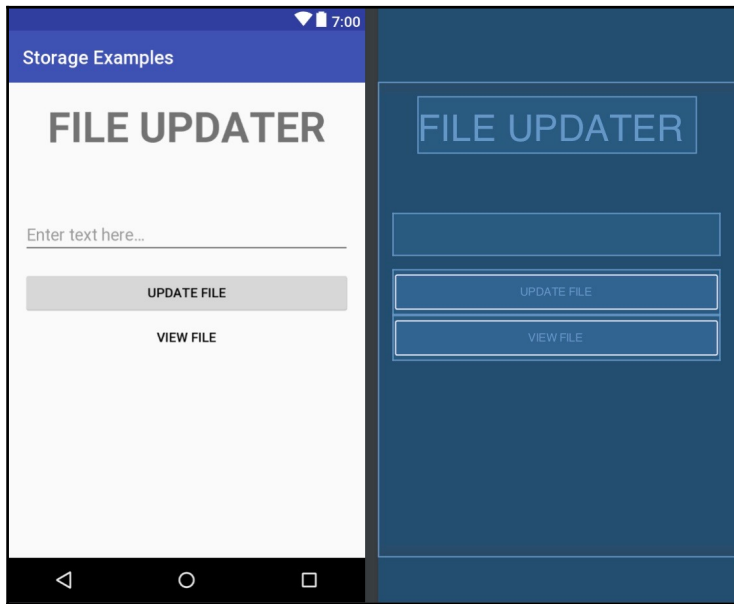




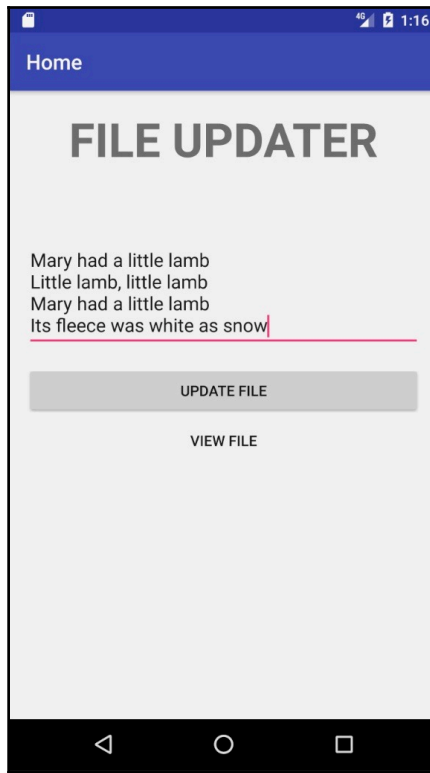


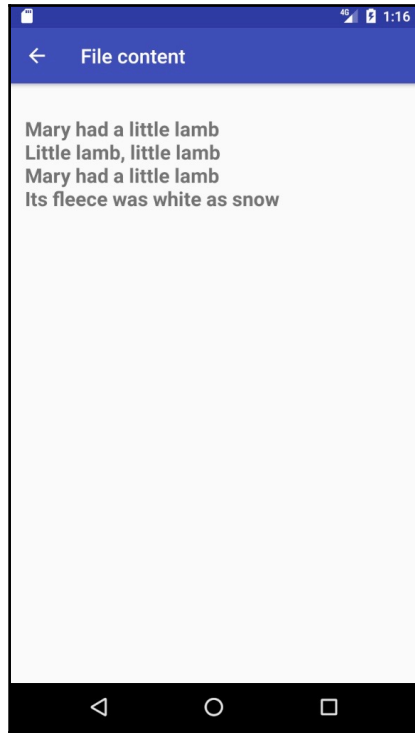
---

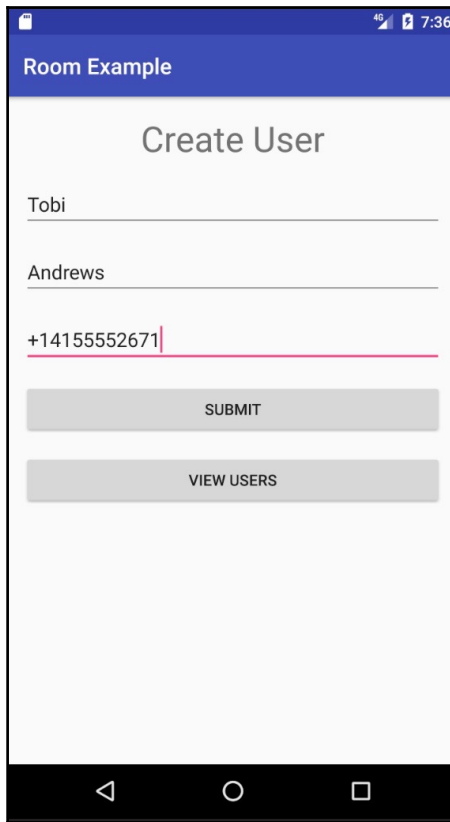
# Chapter 7: Storing Information in a Database

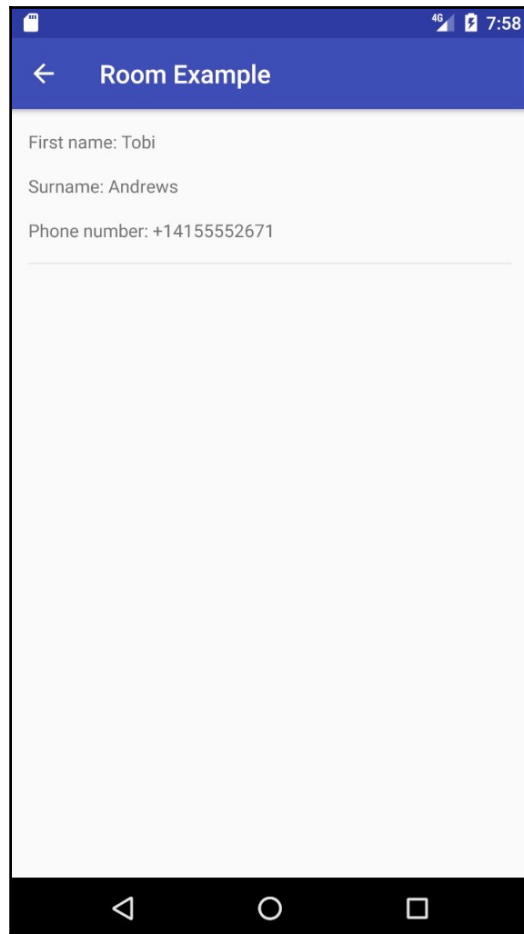


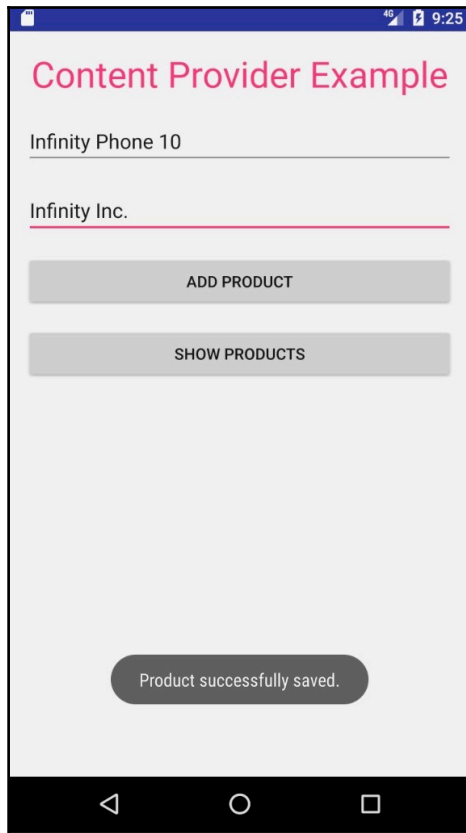


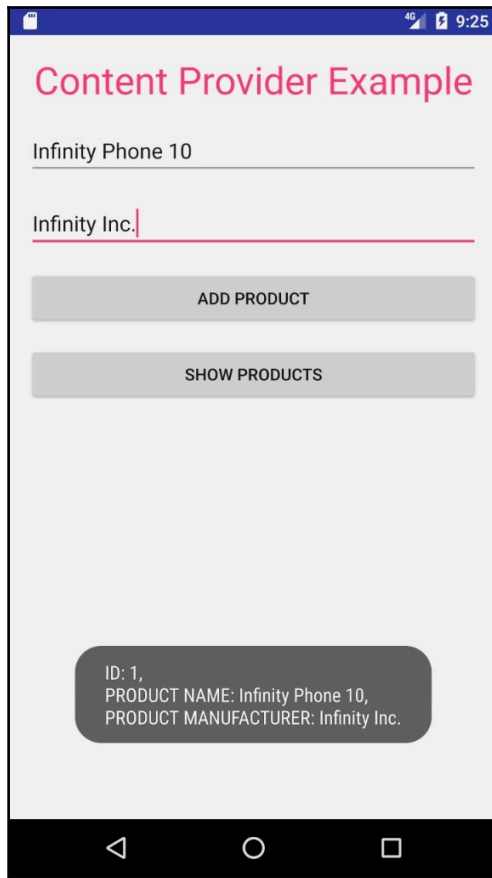






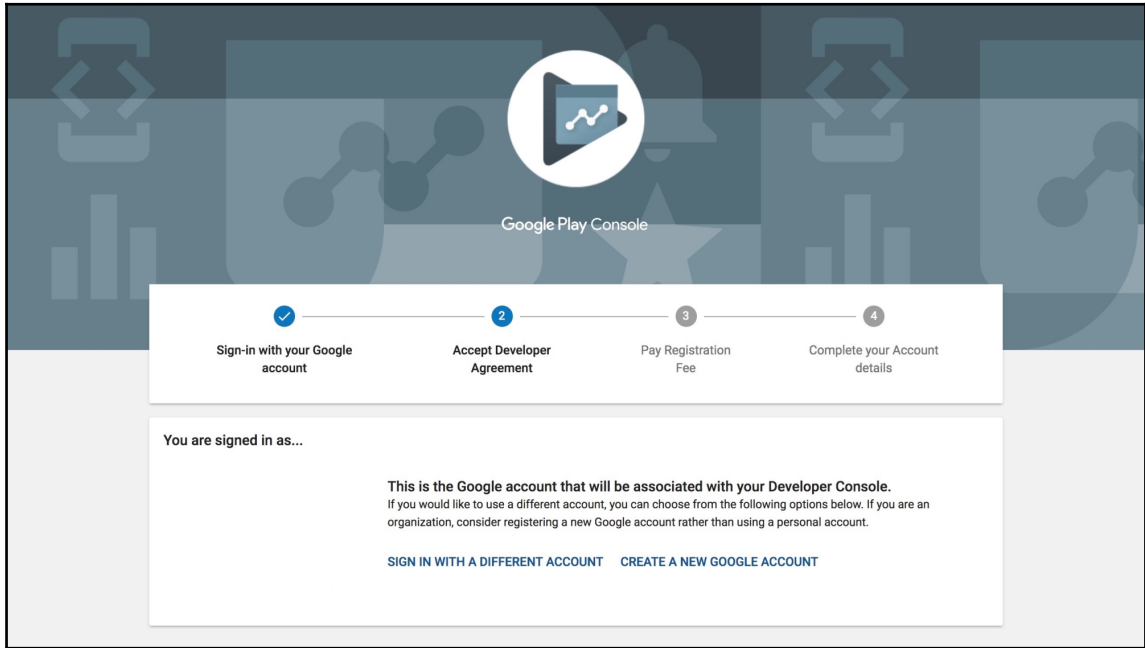




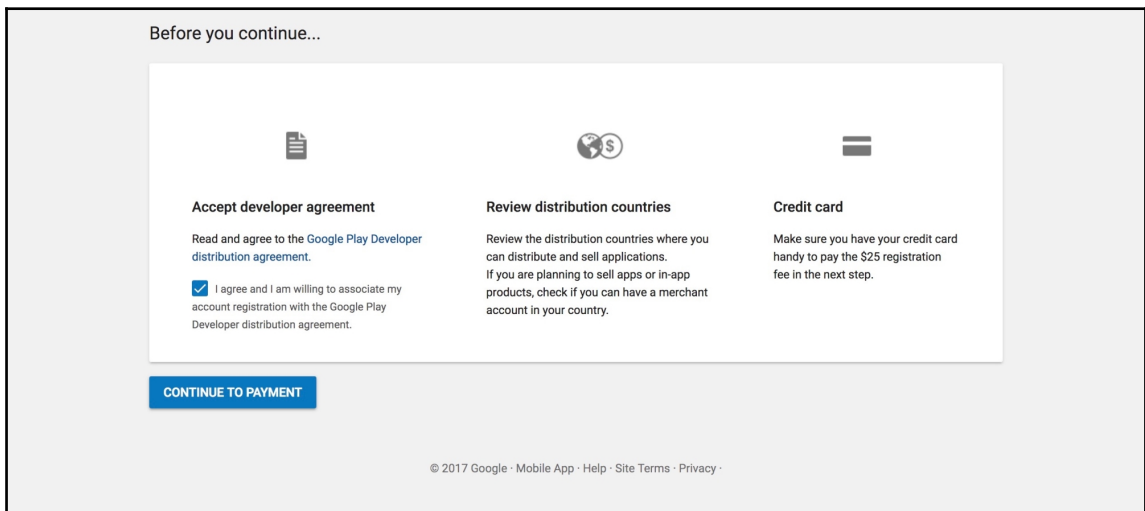


---

# Chapter 8: Securing and Deploying an Android App



The screenshot shows the Google Play Console registration progress bar with four steps: 1. Sign-in with your Google account (completed), 2. Accept Developer Agreement (current step), 3. Pay Registration Fee, and 4. Complete your Account details. Below the progress bar, it says "You are signed in as..." followed by a warning: "This is the Google account that will be associated with your Developer Console. If you would like to use a different account, you can choose from the following options below. If you are an organization, consider registering a new Google account rather than using a personal account." At the bottom, there are two links: "SIGN IN WITH A DIFFERENT ACCOUNT" and "CREATE A NEW GOOGLE ACCOUNT".

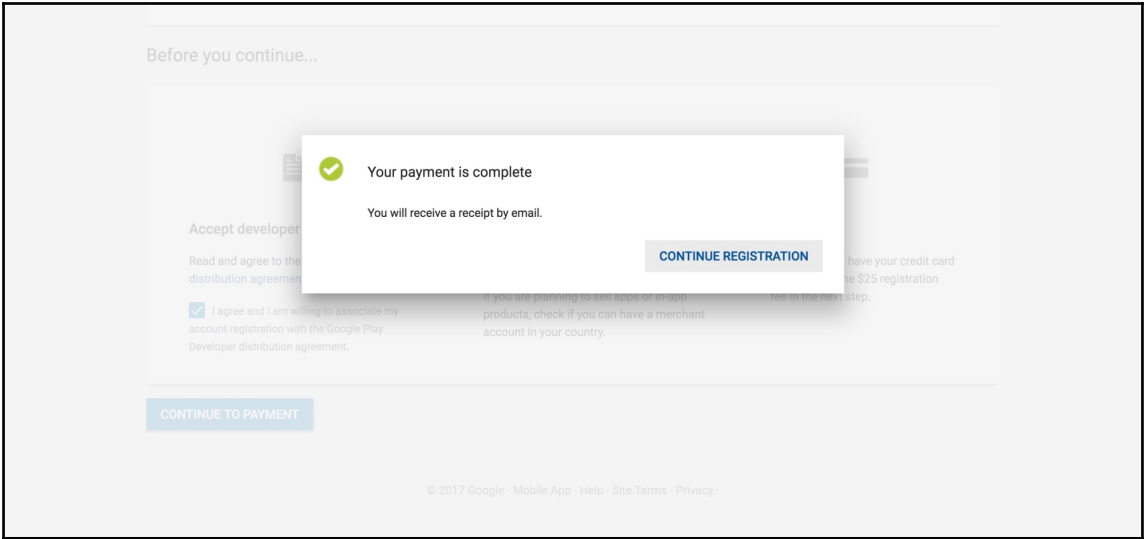


The screenshot shows the "Before you continue..." screen with three sections: "Accept developer agreement", "Review distribution countries", and "Credit card".

- Accept developer agreement:** Read and agree to the Google Play Developer distribution agreement.  I agree and I am willing to associate my account registration with the Google Play Developer distribution agreement.
- Review distribution countries:** Review the distribution countries where you can distribute and sell applications. If you are planning to sell apps or in-app products, check if you can have a merchant account in your country.
- Credit card:** Make sure you have your credit card handy to pay the \$25 registration fee in the next step.

[CONTINUE TO PAYMENT](#)

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Just complete the following details. You can change this information later in your account settings if you need to.

**Developer Profile** Fields marked with \* need to be filled before saving.

Developer name \* 14/50

\_\_\_\_\_

The developer name will appear to users under the name of your application.

Email address \*

\_\_\_\_\_

\_\_\_\_\_

Website

\_\_\_\_\_

\_\_\_\_\_

Phone Number \*

\_\_\_\_\_

Include plus sign, country code and area code. For example, +1-800-555-0199.  
[Why do we ask for your phone number?](#)

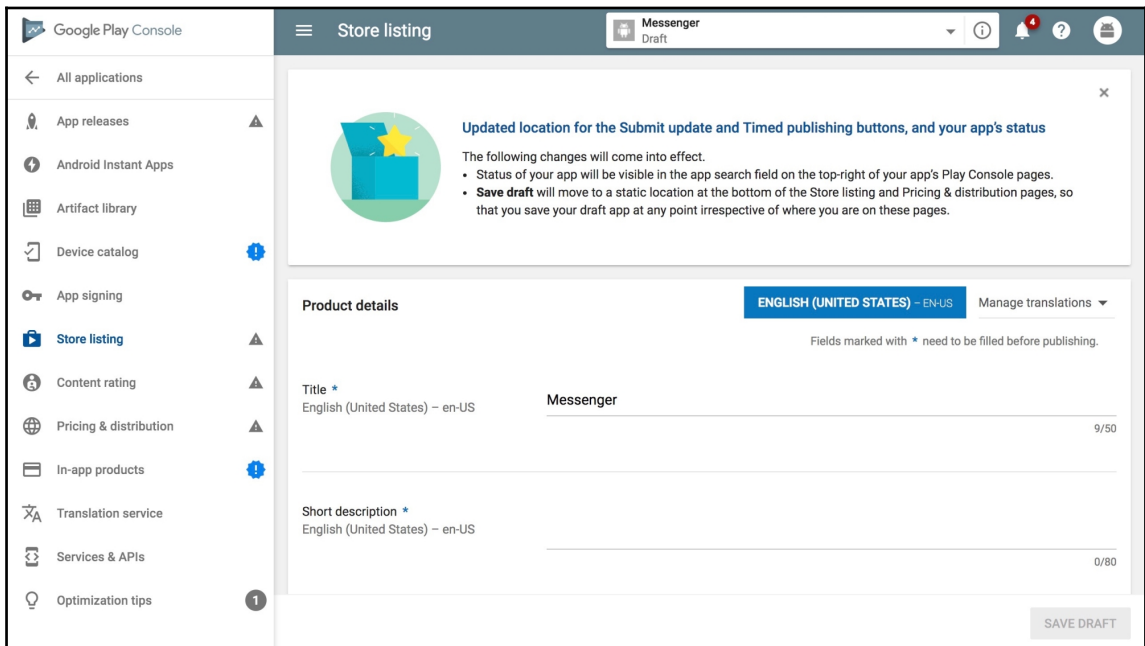
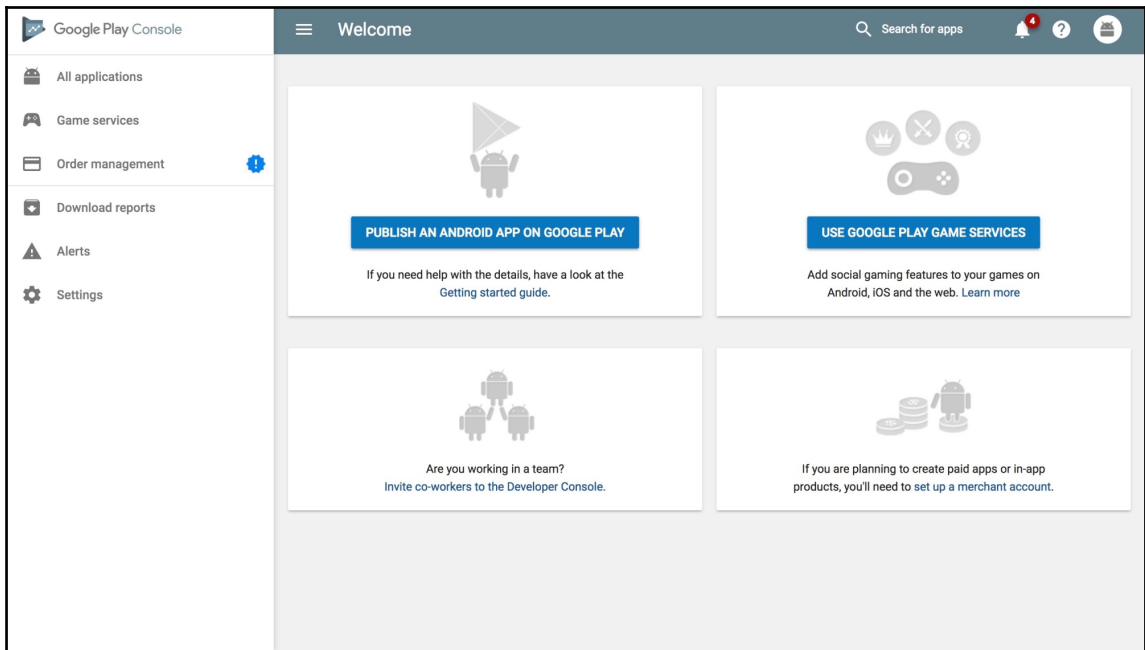
**Email preferences**

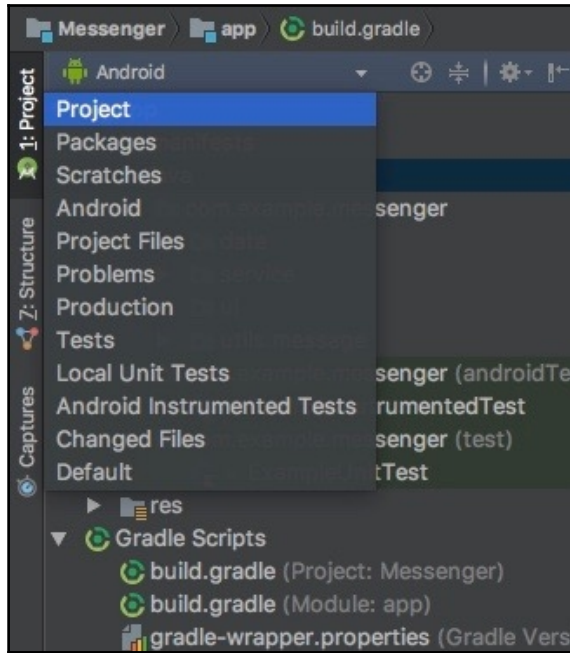
I'd like to get new feature announcements and tips to help improve my apps.

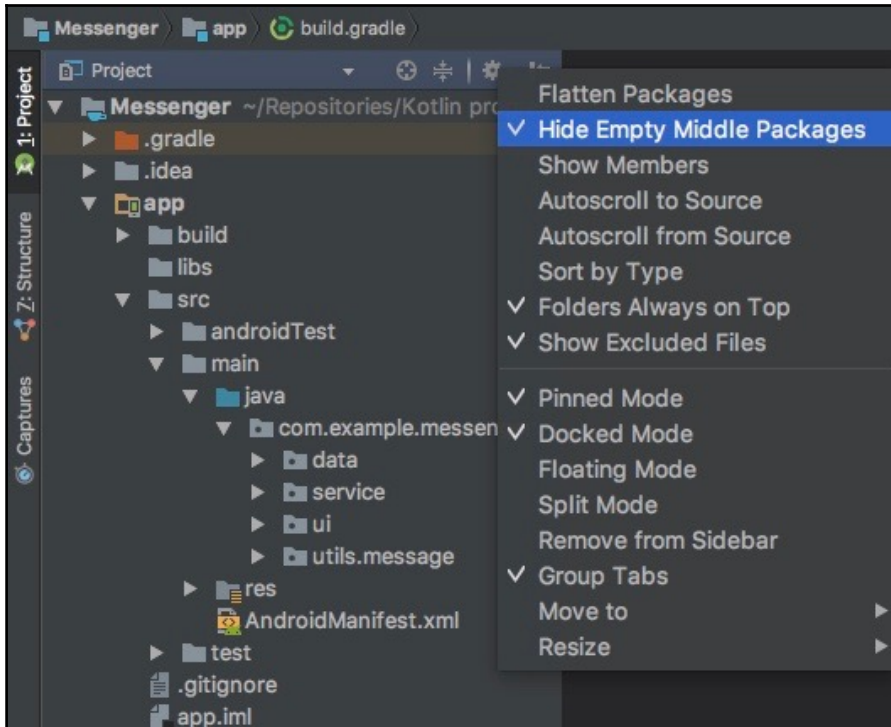
I'd like to give feedback to help improve the Google Play Developer Console.

**COMPLETE REGISTRATION**









Google Play Console

Store listing

Messenger Draft

ENGLISH (UNITED STATES) - en-US Manage translations

Product details

Please check out our [Impersonation and Intellectual Property policy](#) to avoid common violations.

PHONE TABLET ANDROID TV ANDROID WEAR

3/8 screenshots **BROWSE FILES**

Hi-res icon *	Feature Graphic *	Promo Graphic
Default - English (United States) - en-US 512 x 512 32-bit PNG (with alpha)	Default - English (United States) - en-US 1024 w x 500 h JPG or 24-bit PNG (no alpha)	Default - English (United States) - en-US 180 w x 120 h JPG or 24-bit PNG (no alpha)

**SAVE DRAFT**

Google Play Console

Pricing & distribution

Messenger Draft

Designed for Families Google Play for Education Managed Google Play Daydream Android Wear Android TV Android Auto

This application is **PAID** **FREE**

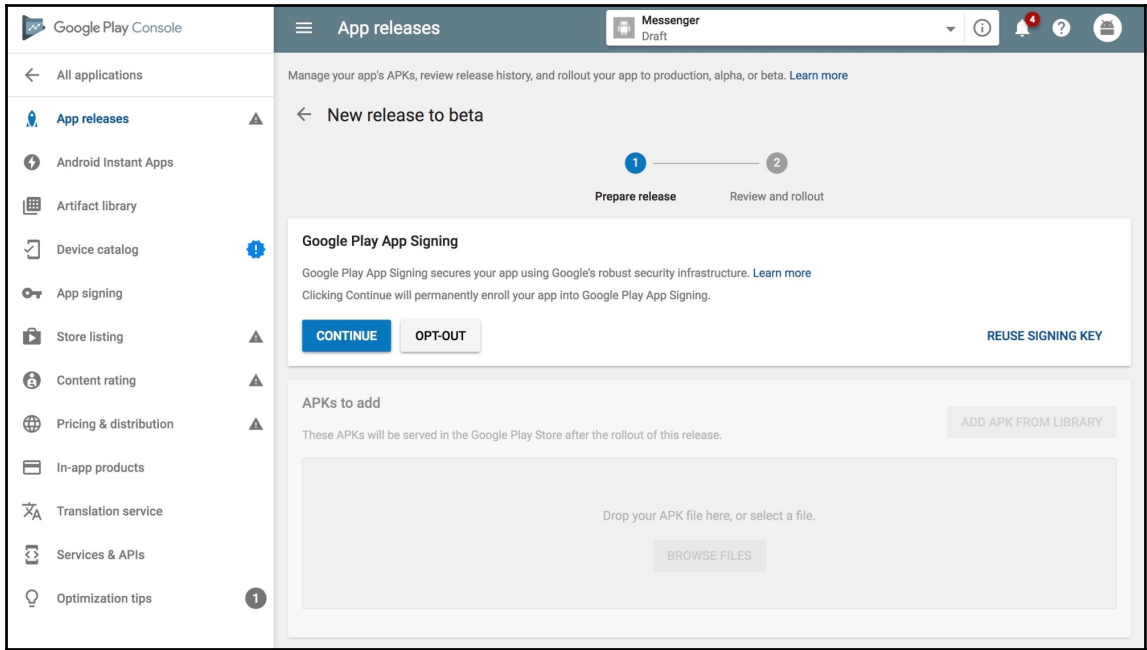
To publish paid applications, you need to [set up a merchant account](#). [Learn more](#)

App Availability **Your app is currently in a draft state, it will become available on the Play Store when you rollout a release.**

Countries \*

Unavailable countries	Available countries	Unsaved changes
<b>137</b> + rest of world	<b>5</b> Alpha and Beta synced with production	<b>MANAGE COUNTRIES</b>

**SAVE DRAFT**



← New release to beta

1

Prepare release

2

Review and rollout

**APKs to add**

These APKs will be served in the Google Play Store after the rollout of this release.

ADD APK FROM LIBRARY

Drop your APK file here, or select a file.

BROWSE FILES

**Release name**

Name to identify release in the Play Console only, such as an internal code name or build version.

Enter a release name

0/50

Suggested name is based on version name of first APK added to this release.

Google Play Console

Content rating

Messenger Ready to publish

**APPLIED RATING**  
Submitted: 2 minutes ago  
[View details](#) [Learn more](#)

L E 3 USK 0 IARC 3+

3 3

**Questionnaires**

Date	IARC Certificate	Email	
2 minutes ago			<a href="#">Edit</a> <a href="#">VIEW DETAILS</a>

**Learn more about the content rating questionnaire and content ratings on Google Play here.**  
Submit a new content rating questionnaire for all app updates where there has been a change to app content or features that would affect your responses to the questionnaire.

[START NEW QUESTIONNAIRE](#)

Google Play Console

App releases

Messenger Ready to publish

This release is ready to be rolled out.

**APKs in this release**

Version code	Uploaded	Installs on active devices
1 APK added		
1	55 minutes ago	No data

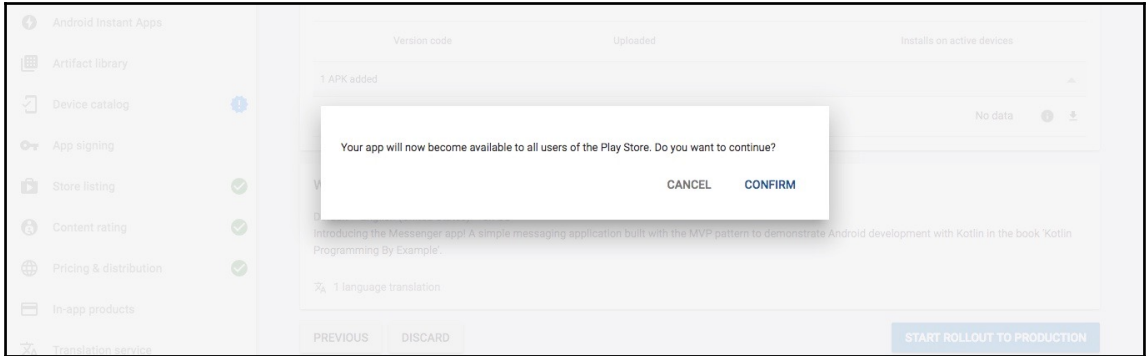
**What's new in this release?**

Default – English (United States) – en-US  
Introducing the Messenger app! A simple messaging application built with the MVP pattern to demonstrate Android development with Kotlin in the book 'Kotlin Programming By Example'.

1 language translation

[PREVIOUS](#) [DISCARD](#) [START ROLLOUT TO PRODUCTION](#)

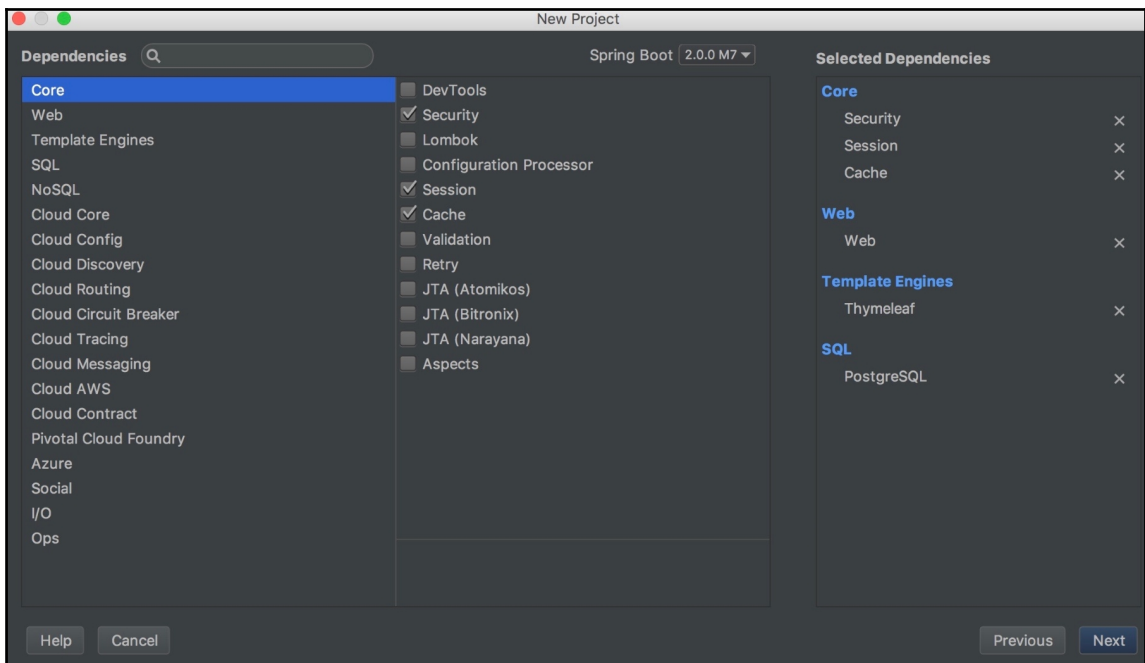
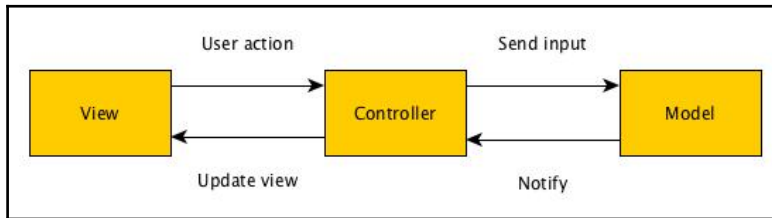
© 2017 Google · Mobile App · Help · Site Terms · Privacy · Developer Distribution Agreement

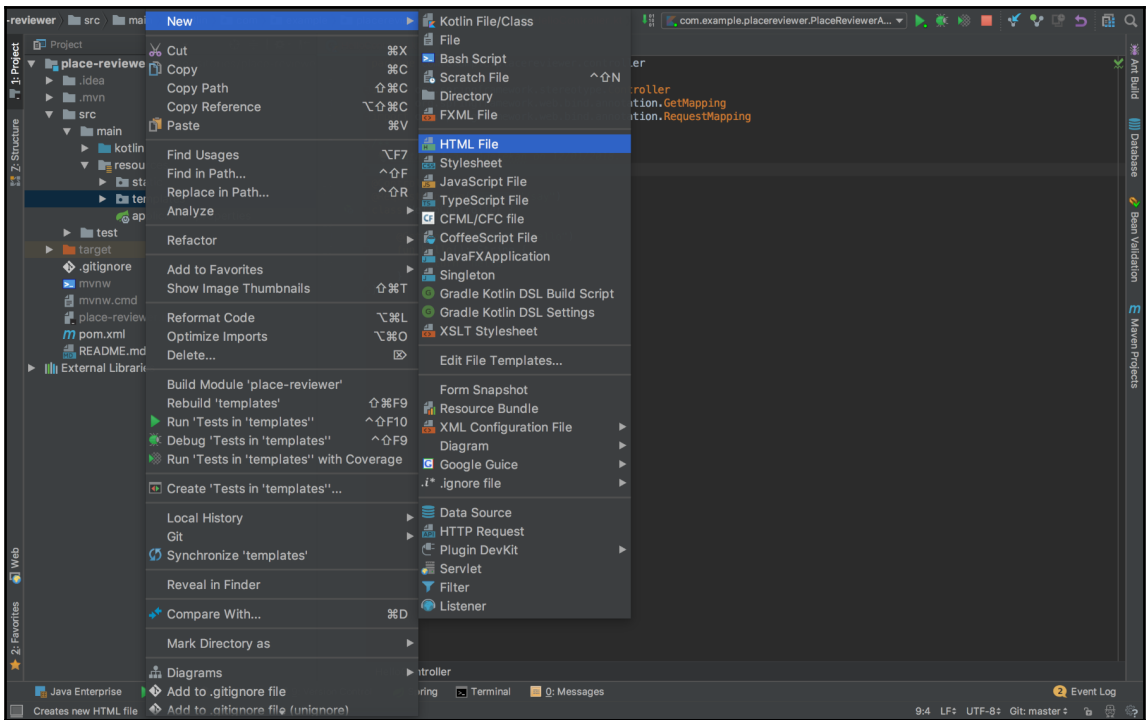
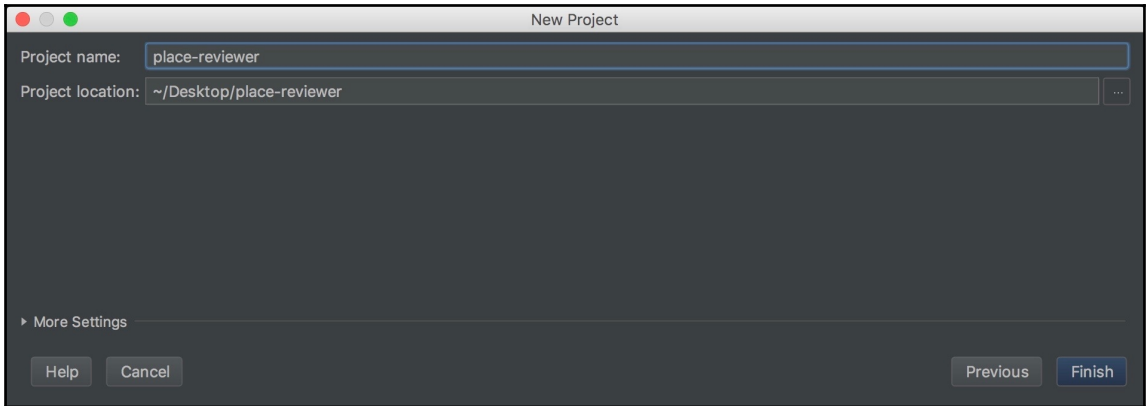


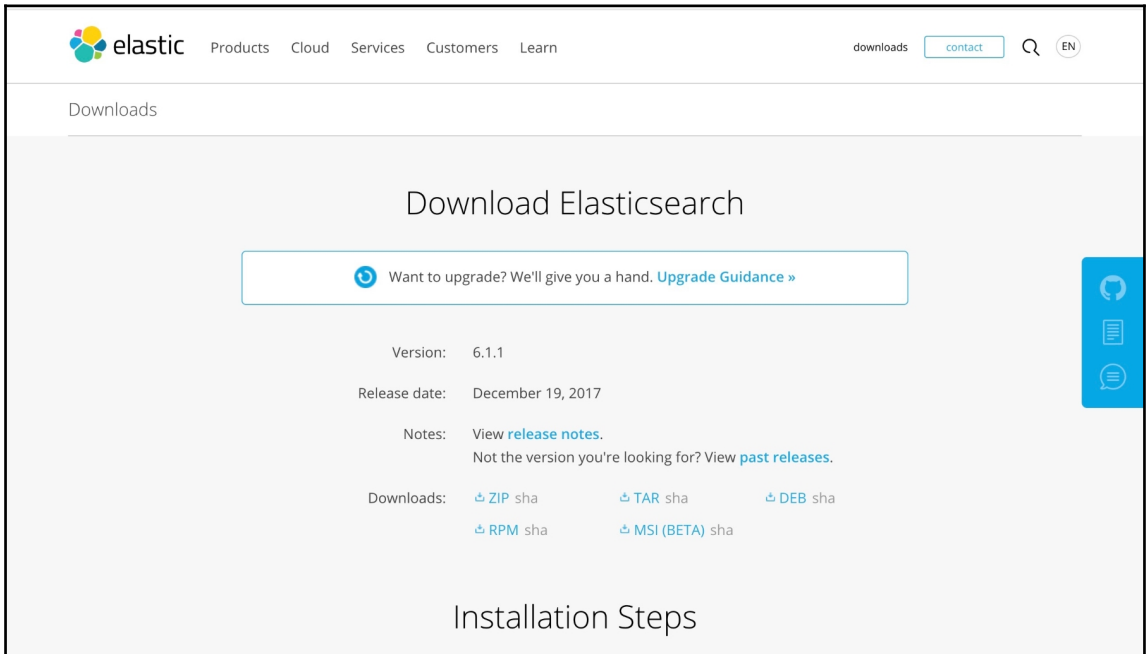
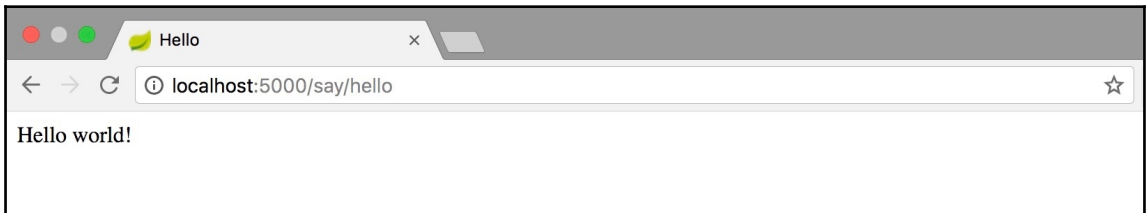
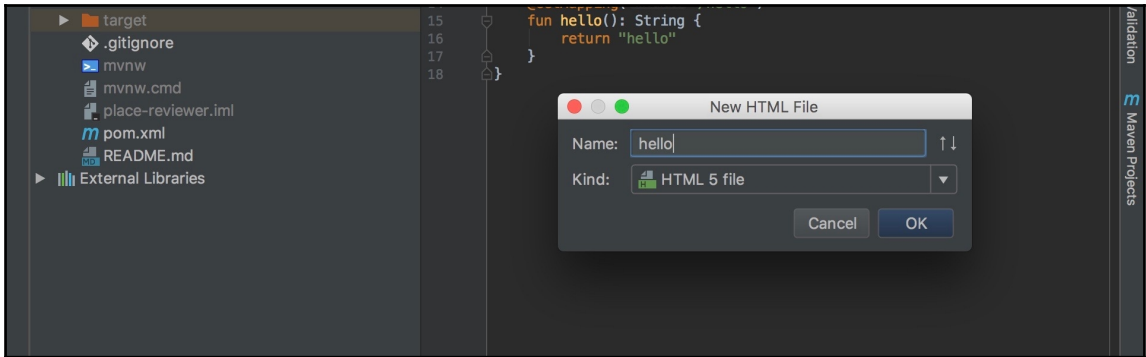


---

# Chapter 9: Creating the Place Reviewer Backend with Spring







```

$ elasticsearch-6.1.1/bin/elasticsearch
[2018-01-16T01:06:00.339][INFO ][o.e.n.Node           ] [ ] initializing ...
[2018-01-16T01:06:00.461][INFO ][o.e.e.NodeEnvironment ] [Df8YuN2] using [1]
data paths, mounts [[/ /dev/disk1]], net usable_space [11.6gb], net total_spac
e [111.8gb], types [hfs]
[2018-01-16T01:06:00.461][INFO ][o.e.e.NodeEnvironment ] [Df8YuN2] heap size
[990.7mb], compressed ordinary object pointers [true]
[2018-01-16T01:06:00.483][INFO ][o.e.n.Node           ] node name [Df8YuN2]
derived from node ID [Df8YuN2dQTa5CJH0cSq9KQ]; set [node.name] to override
[2018-01-16T01:06:00.484][INFO ][o.e.n.Node           ] version[6.1.1], pid[
19550], build[bd92e7f/2017-12-17T20:23:25.338Z], OS[Mac OS X/10.12.5/x86_64], JV
M[Oracle Corporation/Java HotSpot(TM) 64-Bit Server VM/1.8.0_65/25.65-b01]
[2018-01-16T01:06:00.484][INFO ][o.e.n.Node           ] JVM arguments [-Xms1
g, -Xmx1g, -XX:+UseConcMarkSweepGC, -XX:CMSInitiatingOccupancyFraction=75, -XX:+
UseCMSInitiatingOccupancyOnly, -XX:+AlwaysPreTouch, -Xss1m, -Djava.awt.headless=
true, -Dfile.encoding=UTF-8, -Djna.nosys=true, -XX:-OmitStackTraceInFastThrow, -
Dio.netty.noUnsafe=true, -Dio.netty.noKeySetOptimization=true, -Dio.netty.recycl
er.maxCapacityPerThread=0, -Dlog4j.shutdownHookEnabled=false, -Dlog4j2.disable.j
mx=true, -XX:+HeapDumpOnOutOfMemoryError, -Des.path.home=/Users/Iyanu/Downloads/
elasticsearch-6.1.1, -Des.path.conf=/Users/Iyanu/Downloads/elasticsearch-6.1.1/c
onfig]
[2018-01-16T01:06:01.607][INFO ][o.e.p.PluginsService ] [Df8YuN2] loaded mod
ule [aggs-matrix-stats]

```

Welcome to Kibana

Data already in Elasticsearch? [Set up index patterns](#)

**Visualize and Explore Data**

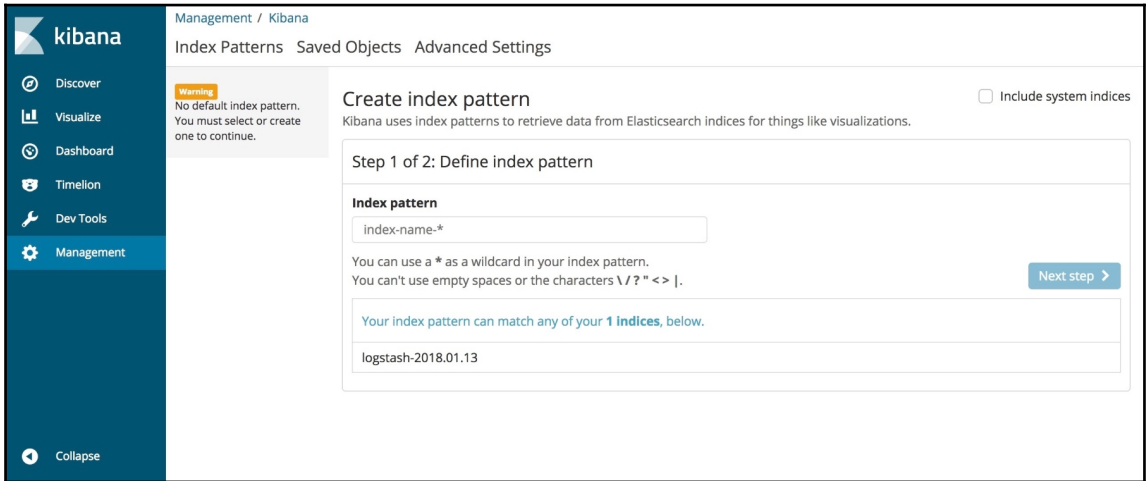
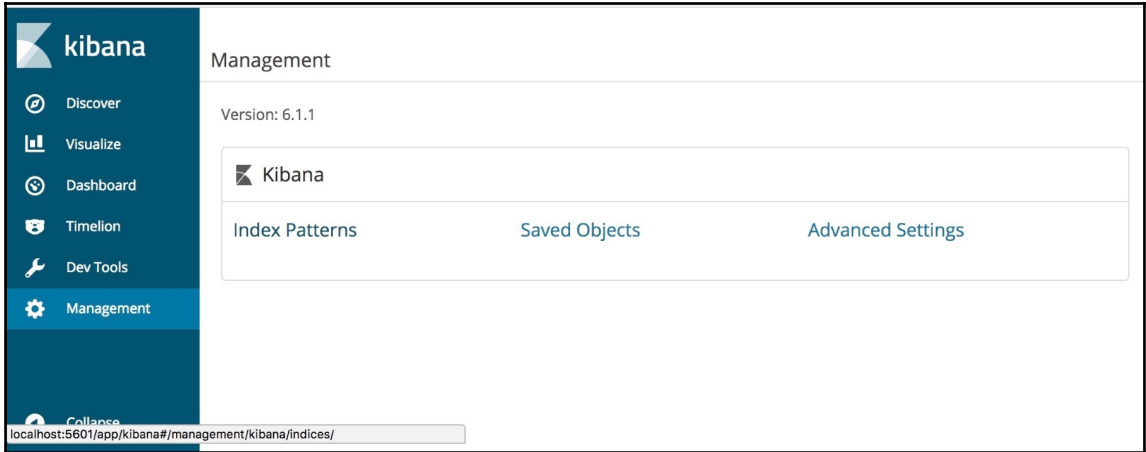
- Dashboard**: Display and share a collection of visualizations and saved searches.
- Discover**: Interactively explore your data by querying and filtering raw documents.
- Timelion**: Use an expression language to analyze time series data and visualize the results.
- Visualize**: Create visualizations and aggregate data stores in your Elasticsearch indices.

**Manage and Administer the Elastic Stack**

- Console**: Skip cURL and use this JSON interface to work with your data directly.
- Index Patterns**: Manage the index patterns that help retrieve your data from Elasticsearch.
- Saved Objects**: Import, export, and manage your saved searches, visualizations, and dashboards.

Didn't find what you were looking for?

[View full directory of Kibana plugins](#)



Management / Kibana

Index Patterns Saved Objects Advanced Settings

**Warning**  
No default index pattern. You must select or create one to continue.

## Create index pattern

Kibana uses index patterns to retrieve data from Elasticsearch indices for things like visualizations.

### Step 2 of 2: Configure settings

You've defined **logstash-2018.01.13** as your index pattern. Now you can specify some settings before we create it.

**Time Filter field name** Refresh

@timestamp

The Time Filter will use this field to filter your data by time. You can choose not to have a time field, but you will not be able to narrow down your data by a time range.

Show advanced options

Back Create Index pattern

Management / Kibana

Index Patterns Saved Objects Advanced Settings

+ Create Index Pattern

★ logstash-2018.01.13

★ Time Filter field name: @timestamp

This page lists every field in the **logstash-2018.01.13** index and the field's associated core type as recorded by Elasticsearch. While this list allows you to view the core type of each field, changing field types must be done using Elasticsearch's [Mapping API](#).

fields (32) scripted fields (0) source filters (0)

Q Filter All field types

name	type	format	searchable	aggregatable	excluded	controls
@timestamp	date		✓	✓		✎
@version	string		✓	✓		✎
._id	string		✓	✓		✎
._index	string		✓	✓		✎
._score	number					✎
._source	_source					✎
._type	string		✓	✓		✎
class	string		✓			✎
class.keyword	string		✓	✓		✎
geoip.ip	ip		✓	✓		✎
geoip.latitude	number		✓	✓		✎
geoip.location	geo_point		✓	✓		✎

---

# Chapter 10: Implementing the Place Reviewer Frontend

The screenshot shows a web application titled "Place Reviewer" with a blue header. The main content area is light gray and contains a white-bordered box for account creation. At the top of this box is the text "Create an account" in blue. Below it are three input fields: the first contains "k", the second contains "king.k@gmail.com", and the third is a password field with ten dots. A red error message "Username must be at least 6 characters in length" is displayed below the password field. At the bottom of the box is a blue "Sign Up!" button.



---

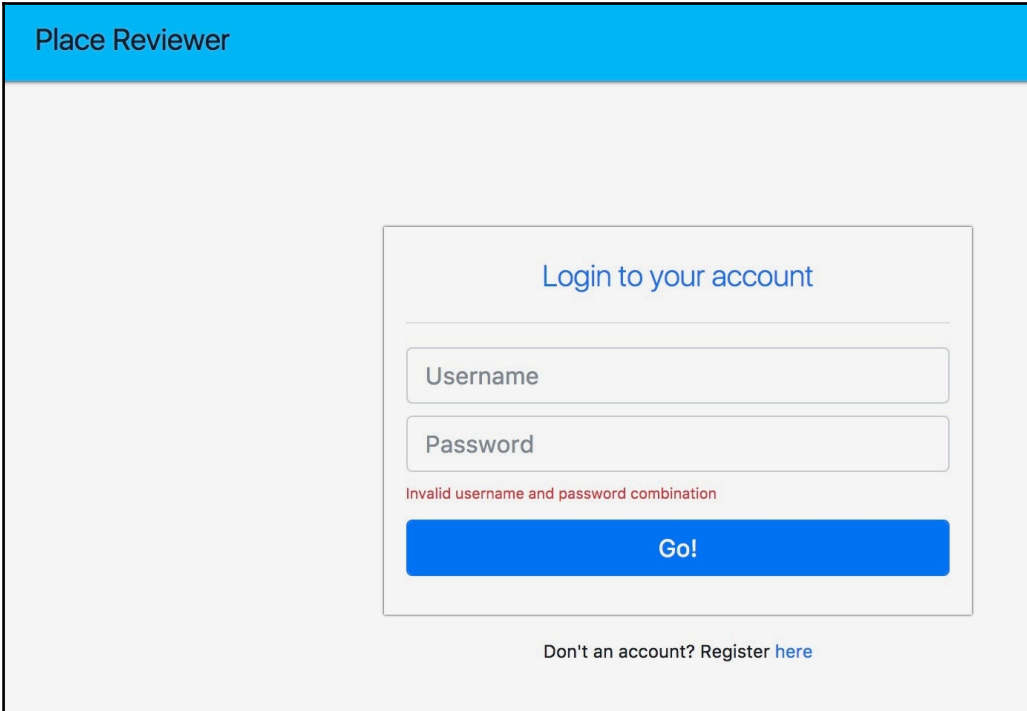
## Place Reviewer

Login to your account

Go!

Don't an account? Register [here](#)





OVERVIEW   GUIDES   SUPPORT   [SEND FEEDBACK](#)

## Get an API key

If you are using the standard Google Places API Web Service

To get started using the Google Places API Web Service, click the button below, which guides you through the process of activating the Google Places API Web Service and getting an API key.

[GET A KEY](#)

Alternatively, follow these steps to get an API key:

1. Go to the [Google API Console](#).
2. Create or select a project.
3. Click **Continue** to enable the API.
4. On the **Credentials** page, get an **API key** (and set the API key restrictions).  
Note: If you have an existing unrestricted API key, or a key with server restrictions, you may use that key.
5. To prevent quota theft, [secure your API key following these best practices](#).
6. (Optional) Enable billing. See [Usage Limits and Billing](#) for more information.

Do not use this key outside of your server code. For example, do not embed it in a web page or in a mobile application.

**Note:** The Google Places API Web Service does not work with an Android or iOS restricted API key.

**Contents**

- [Get an API key](#)
- If you are using the standard Google Places API Web Service
- If you have purchased the Google Maps APIs Premium Plan
- Types of API key restrictions
- Specify a key in your request
- Limit IP addresses

OVERVIEW GUIDES REFERENCE SAMPLES SUPPORT SEND FEEDBACK

## Quickstart steps

- 1 GET A KEY
- 2 START DEVELOPING

Click "Get a Key" to create a project on the Google API Console, activate the Maps JavaScript API and any related services, and get an API key. Then read the [documentation](#) and start developing.


Enable Google Maps JavaScript API

Place Reviewer

CANCEL NEXT


## Related APIs

Use the Places API along with other APIs to build location-relevant apps and sites.




**Google Maps Javascript API**

Customize maps with your own content and imagery.



**Google Maps Directions API**

Calculate directions between locations using an HTTP request.



**Google Maps Distance Matrix API**

Travel time and distance for multiple destinations.

OVERVIEW GUIDES SUPPORT SEND FEEDBACK

## Get an API key

If you are using the standard Google Places API Web Service

**You're all set!**

You're ready to start developing with Google Places API Web Service

YOUR API KEY

AIzaSyC-oQnNIFMmNwx1m\_gw0be\_tultgJVIqUo

To improve your app's security, restrict this key's usage in the [API Console](#).

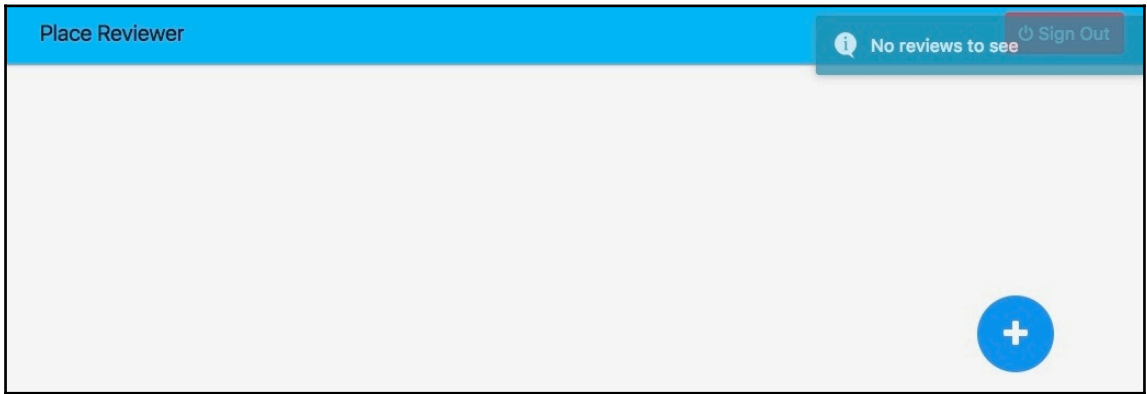
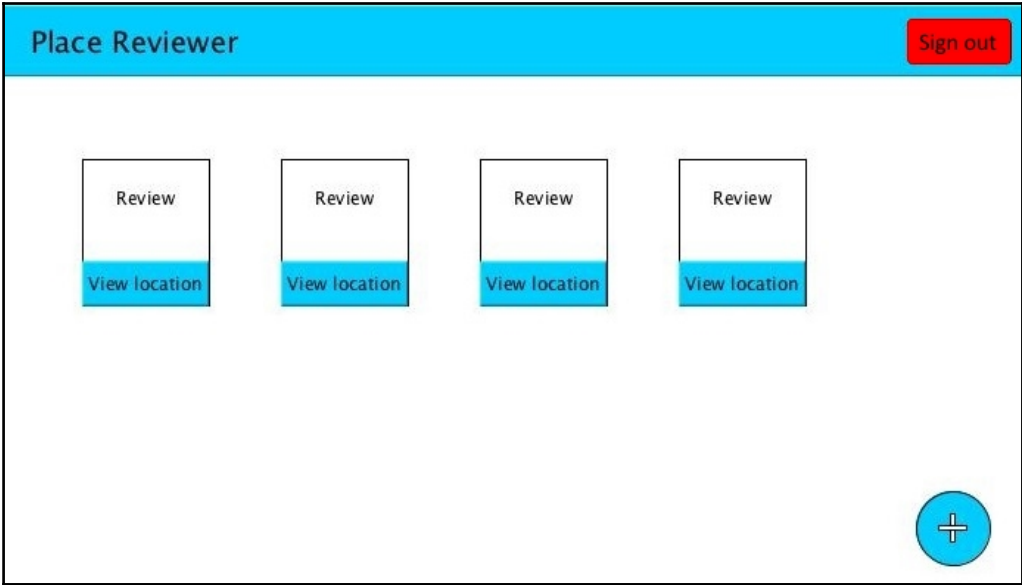
DONE

5. To prevent quota theft, [secure your API key following these best practices](#).

6. (Optional) Enable billing. See [Usage Limits and Billing](#) for more information.

Do not use this key outside of your server code. For example, do not embed it in a web page or in a mobile application.

★ **Note:** The Google Places API Web Service does not work with an Android or iOS restricted API key.



Place Reviewer Sign Out

Write your review

Title

Review

Select Location Submit Review

Place Reviewer Sign Out

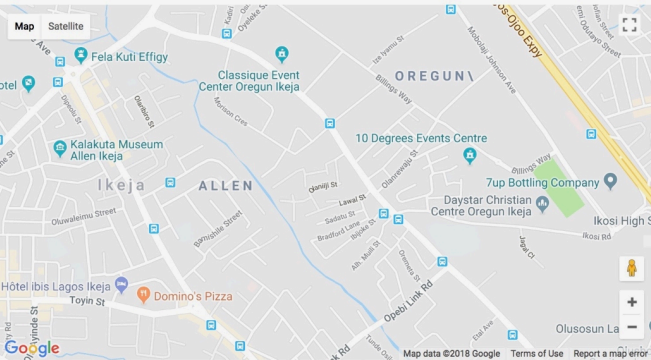
Write your review

Title

Review

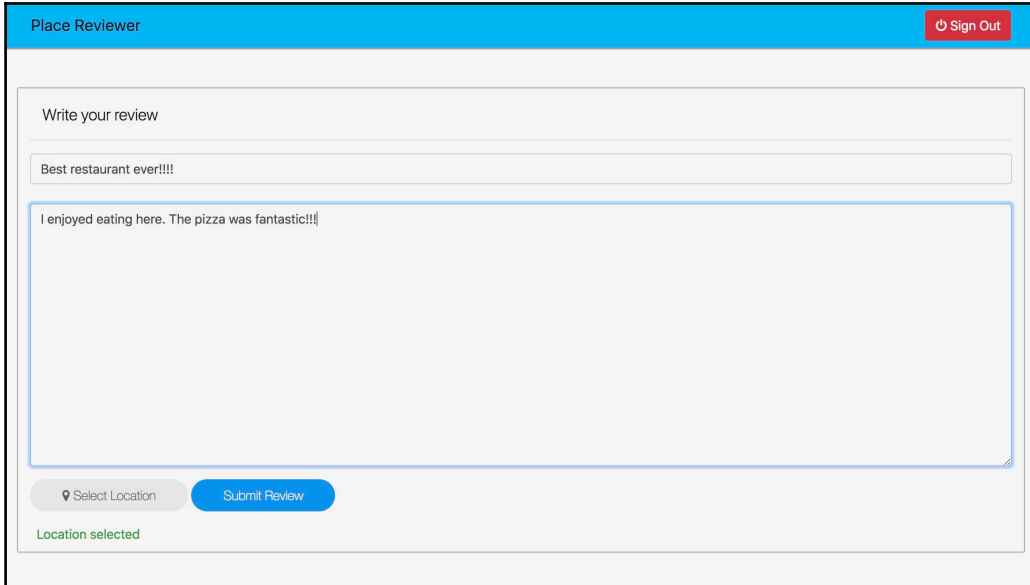
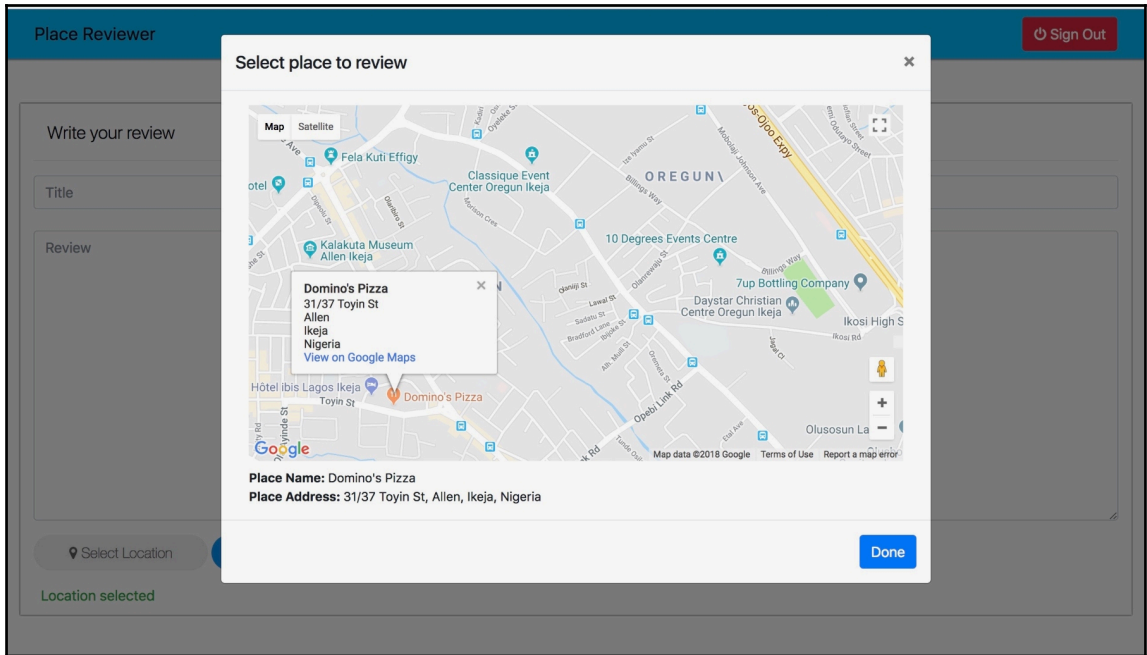
Select Location Submit Review

Select place to review



Place Name:  
Place Address:

Done



Place Reviewer Sign Out

**king.kevin**  
Domino's Pizza

**Best restaurant ever!!!!**

I enjoyed eating here. The pizza was fantastic!!!

[View location](#)

Place Reviewer Sign Out

**king.kevin**  
Domino's Pizza

**Best restaurant ever!!!!**

I enjoyed eating here. The pizza was fantastic!!!

[View location](#)

Reviewed location

[Done](#)

```

PlaceReviewerApplicationTests.kt x TestConfig.kt x TestUserService.kt x TestServiceImpl.kt x
1 package com.example.placereviewer
2
3 import com.example.placereviewer.config.TestConfig
4 import com.example.placereviewer.data.model.User
5 import com.example.placereviewer.service.TestUserService
6 import org.hamcrest.Matchers.instanceOf
7 import org.hamcrest.MatcherAssert.assertThat
8 import org.junit.Test
9 import org.junit.runner.RunWith
10 import org.springframework.beans.factory.annotation.Autowired
11 import org.springframework.boot.test.context.SpringBootTest
12 import org.springframework.test.context.ContextConfiguration
13 import org.springframework.test.context.junit4.SpringRunner
14
15 @RunWith(SpringRunner::class)
16 @SpringBootTest
17 @ContextConfiguration(classes = [TestConfig::class])
18 class PlaceReviewerApplicationTests {
19
20     @Autowired
21     lateinit var userService: TestUserService
22
23     @Test
24     @Run Test testUserRetrieval() {
25         val user = userService.getUser()
26
27         assertThat(user, instanceOf(User::class.java))
28     }
29 }

```

```

1 test passed - 467ms
2018-03-04 22:09:52.292 INFO 39684 --- [main] s.w.s.m.m.a.RequestMappingHandlerMapping : Mapped "[/error],produces=[text/html,application/javascript,*/*] onto handler method
2018-03-04 22:09:52.322 INFO 39684 --- [main] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/login] onto handler method
2018-03-04 22:09:52.352 INFO 39684 --- [main] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/webjars/**] onto handler method
2018-03-04 22:09:52.353 INFO 39684 --- [main] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/css/**] onto handler method
2018-03-04 22:09:52.353 INFO 39684 --- [main] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/**] onto handler method
2018-03-04 22:09:52.403 WARN 39684 --- [main] o.s.h.c.j.Jackson2ObjectMapperBuilder : For Jackson Kotlin classes support
2018-03-04 22:09:52.485 INFO 39684 --- [main] o.s.w.s.handler.SimpleUrlHandlerMapping : Mapped URL path [/**/favicon.ico] onto handler method
2018-03-04 22:09:52.675 WARN 39684 --- [main] o.s.h.c.j.Jackson2ObjectMapperBuilder : For Jackson Kotlin classes support
2018-03-04 22:09:53.001 INFO 39684 --- [main] c.e.p.PlaceReviewerApplicationTests : Started PlaceReviewerApplicationTests
2018-03-04 22:09:53.495 INFO 39684 --- [Thread-3] o.s.w.c.s.GenericWebApplicationContext : Closing org.springframework.web
2018-03-04 22:09:53.500 INFO 39684 --- [Thread-3] j.LocalContainerEntityManagerFactoryBean : Closing JPA EntityManagerFactory
2018-03-04 22:09:53.504 INFO 39684 --- [Thread-3] com.zaxxer.hikari.HikariDataSource : testdb - Shutdown initiated...
2018-03-04 22:09:53.516 INFO 39684 --- [Thread-3] com.zaxxer.hikari.HikariDataSource : testdb - Shutdown completed.

Process finished with exit code 0

```