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**GitHub Username**: bqfix

Dicey Dice

# Description

Calling all gamers! Forgot your dice at home? Curious about dice odds? Want some cards? Dicey Dice has you covered, for all your virtual randomization needs!

From classic 6-sided dice to d20s and beyond, virtually roll whatever you need to randomize your game, all with a single click! Need a deck of cards for randomization goodness? You’d better believe we’ve got one ready for you!  
  
Have a set of dice you roll constantly? Create custom favorites, with whatever wild numbers you need. Curious about the odds? Check out the detail screen for predicted probabilities, to optimize your decision making!

# Intended User

This app is intended for tabletop gamers, both casual and veteran. Simple dice-rolling and card-drawing functionality will be implemented in an easy-to-use manner for people who simply want to see results, while details screens will provide probability odds and other helpful data for power-gamers who want to optimize their gameplay.

# Features

* Randomize dice rolls, both preset and custom, and provide the results.
* Randomize a card from a standard deck of cards (with or without Jokers).
* Save sets of dice (locally or cloud-based) for quick access and rolling.
* Provide a details screen for any given set of dice, displaying probabilities for a given roll.

# User Interface Mocks

These can be created by hand (take a photo of your drawings and insert them in this flow), or using a program like Google Drawings, [www.ninjamock.com](http://www.ninjamock.com), Paper by 53, Photoshop or Balsamiq.

## Screen 1



Replace the above image with your own mock [ click on the above image, then navigate to Insert → Image… ]

Provide descriptive text for each screen

## Screen 2



Replace the above image with your own mock [ click on the above image, then navigate to Insert → Image… ]

Provide descriptive text for each screen

Add as many screens as you need to portray your app’s UI flow.

# Key Considerations

### How will your app handle data persistence?

Dice sets will be saved to a Firebase realtime database for use across different devices.

### Describe any edge or corner cases in the UX.

* An extreme user who wants to save a lot of dice sets to the cloud could eat up space quickly, and there must be per-user limits as such.
* In the event of excessively large dice rolls, system memory can quickly run out and cause crashes during calculations, and so a reasonable ceiling must be implemented.

### Describe any libraries you’ll be using and share your reasoning for including them.

FirebaseUI will be used for implementing a login/authentication interface for those users who wish to store dice sets in the cloud.  
<https://github.com/firebase/FirebaseUI-Android>

### Describe how you will implement Google Play Services or other external services.

Firebase Realtime Database and Authentication will be used for cloud storage of custom/favorited dice sets.

Firebase Analytics will be implemented for tracking usage of the app.  
  
Google AdMob will be used for populating ads within the app.

# Next Steps: Required Tasks

This is the section where you can take the main features of your app (declared above) and break them down into tangible technical tasks that you can complete one at a time until you have a finished app.

## Task 1: Project Setup

Write out the steps you will take to setup and/or configure this project. See previous implementation guides for an example.

You may want to list the subtasks. For example:

* Configure libraries
* Something else

If it helps, imagine you are describing these tasks to a friend who wants to follow along and build this app with you.

## Task 2: Implement UI for Each Activity and Fragment

List the subtasks. For example:

* Build UI for MainActivity
* Build UI for something else

## Task 3: Your Next Task

Describe the next task. For example, “Implement Google Play Services,” or “Handle Error Cases,” or “Create Build Variant.”

Describe the next task. List the subtasks. For example:

* Create layout
* Something else

## Task 4: Your Next Task

Describe the next task. List the subtasks. For example:

* Create layout
* Something else

## Task 5: Your Next Task

Describe the next task. List the subtasks. For example:

* Create layout
* Something else

Add as many tasks as you need to complete your app.

**Submission Instructions**

* After you’ve completed all the sections, download this document as a PDF [ File → Download as PDF ]
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* Create a new GitHub repo for the capstone. Name it “**Capstone Project**”
* Add this document to your repo. Make sure it’s named “**Capstone\_Stage1.pdf**”