The official design document for Better Curve; the best deck building tool ever built.

Better Curve

Week Two

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CS 240 – Android Apps

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# Revision History

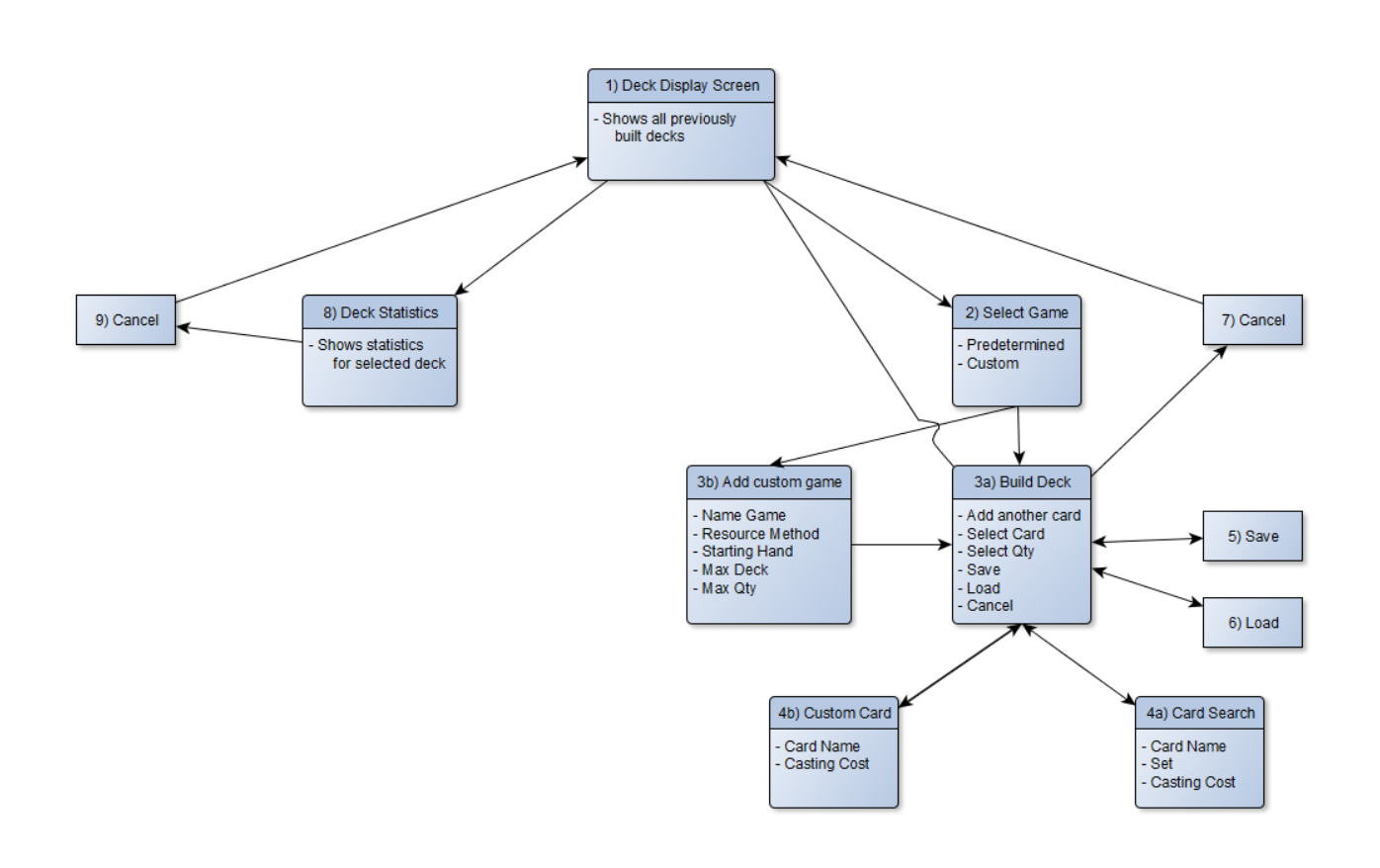
|  |  |
| --- | --- |
| 1/5/16 | * Documentation   + Created Document   + Added Cover Sheet   + Added Table of Contents   + Added section for Revision History |
| 1/9/16 | * Documentation   + Added Use Case #1   + Added Document Description   + Added Introduction |
| 1/14/16 | * Documentation   + Revised Use Case #1     - Added Additional Screens to chart     - Extended Explanations of steps   + Updated Revisions history |
| 1/15/16 | * Documentation   + Updated Revision History * Coding   + Created Android Studio Project – Better Curve   + Added screens for Main Screen, Deck Stats, and Add Cards   + Connected screens for Main Screen, Deck Stats, and Add Cards |
| 1/16/16 | * Documentation   + Updated Revision History   + Added design and implementation sections   + Added class instantiable class diagram and screenshots subsections * Coding   + Added additional buttons to layout of Add Cards Screen   + Added Card Details screen |
| 1/17/17 | * Documentation   + Updated Revision History   + Added use case 3a     - Added to design     - Added to Implementation * Coding   + Added additional buttons to layout of Add Cards Screen   + Added Card Details screen |
|  |  |
|  |  |

# Introduction

Better Curve is a powerful, all-in-one tool for building decks for various TCGs. With pre-loaded games, the user can simply build their deck obeying the rules of the game. For one not yet added, the user can simply define a few quick rules and from there construct the deck. Afterwards, this powerful app calculates percentages for drawing cards based on the turn the resources to use them becomes available, allowing players to fine tune decks right from the builder.

# Analysis

## Prioritized use cases

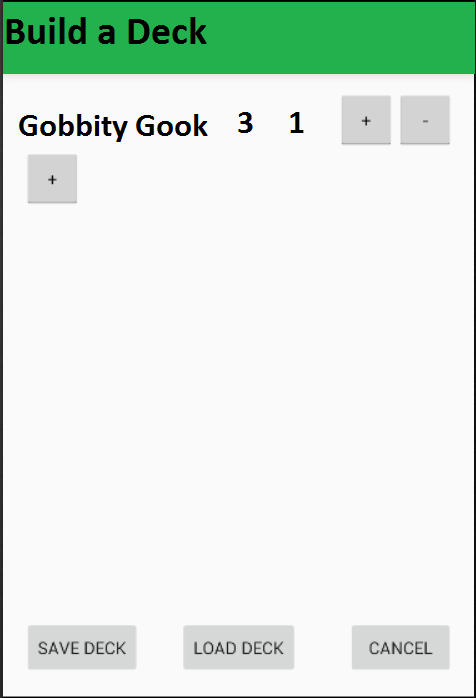


1. The home screen, shows user created decks (saved in a file) and provides options for creating new decks, modifying/removing existing decks, or viewing stats.
2. (If New Deck) The user will be able to select which game they want to make a deck for, or create a custom set of rules.
3. The user can add to or remove cards from their deck.
4. The user will be able to select a card from the included database for that game (or enter some basic info for a custom game)
5. The user will be able to save the current deck, being prompted to name it.
6. The user can load a previously created deck.
7. The user can also choose to cancel, without saving, at any time.
8. The user will see updated statistics of their decks curve.
9. The user can return to the home screen.

# Design

### Use Case 3a

|  |  |
| --- | --- |
| **Name** | **Value** |
| txtName |  |
| txtCost |  |
| txtQty |  |
| btnRaise | + |
| btnLower | - |
| btnAddCard | + |
| btnSave | Save Deck |
| btnLoad | Load Deck |
| btnCancel | Cancel |



### Instantiable Class Diagram:

|  |
| --- |
| Manningk.bettercurve::Card |
| -game: String  -set: String  -set number: int  -name: String  -cost: int  -ability: String  -flavor: String  -stats: int[] |
| + public Card()  + public Card(String m\_strGame, String m\_strSet, int m\_intSetNumberSetNumber, String m\_strName,  int m\_intCost, String m\_strAbility, String m\_strFlavor, int[] m\_intStats)  + String getM\_strGame()  + void setM\_strGame(String m\_strGame)  + String getM\_strSet() + void setM\_strSet(String m\_strSet) + int getM\_intSetNumber() + void setM\_intSetNumber(short m\_intSetNumber) + String getM\_strName() + void setM\_strName(String m\_strName)  + int getM\_intCost() + void setM\_intCost(short m\_intCost + String getM\_strAbility() + void setM\_strAbility(String m\_strAbility)  + String getM\_strFlavor() + void setM\_strFlavor(String m\_strFlavor)  + int[] getM\_shtStats() + void setM\_shtStats(short[] m\_shtStats) |

# Implementation

## Screen Shots

### Use Case 3a



## Current Project Structure

The following diagram depicts the Better Curve project structure, leading to the files that have been added or modified to date:

* Better Curve
  + app
    - src
      * main
        + java

manningk.betterCurve

Card

Deck

MainScreen

* + - * res
        + layout

activity\_add\_screen.xml

activity\_build\_screen.xml

activity\_card\_details\_screen.xml

activity\_custom\_screen.xml

activity\_main\_screen.xml

activity\_make\_screen.xml

activity\_stats\_screen.xml