

DOMINION

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Project Introduction and Description

Our app is a mobile version of the board game Dominion. The mobile app version of Dominion seeks to recreate the experience of a multiplayer card game by using a visual interface imitating the physical setup of the card game. Dominion is a deck-building card game. Each player uses a separate deck of cards and draw their hands from their own decks, not others'. Players use the cards in their hands to either perform actions or buy select cards from a common pool of card stacks. The player with the most victory points at the end of the game wins. This game is meant to be played with friends whenever and where ever you'd like to play it.

Implementation

The app operates using a finite state machine contained in a Spring/Hibernate server-side structure, which is set up to receive API and HTTP calls from connected devices. The design is modular. The present iteration of the app uses Android devices for the user-facing functions, but the server-side code should be robust to implementations on the Web, iOS, or other types of devices. The primary game logic is stored on the server, making the user-facing device code lightweight and focused entirely on user experience. The devices make regular HTTP calls to retrieve their next state from the server and to send user input. The server-side code calculates the effects of different actions, contains tables and classes tracking the state of decks, player hands, and discard piles, and returns the next available state to the consumer applications.

Technology Stack

Back End:

Java using Spring/Hibernate Server Frameworks

Receives API calls over HTTP from connected devices

Manages Game Logic

Front End:

Java using Android devices for the user-facing functions

Google Sign-In for User Authentication and security

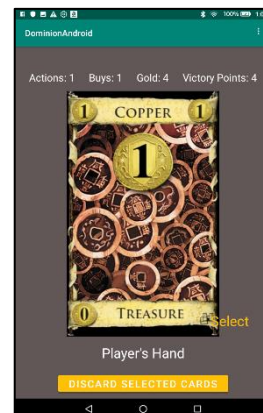
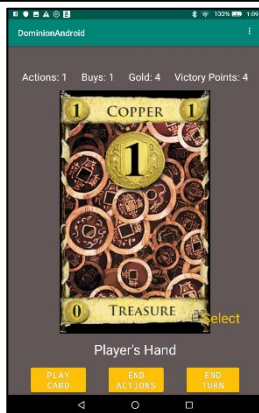
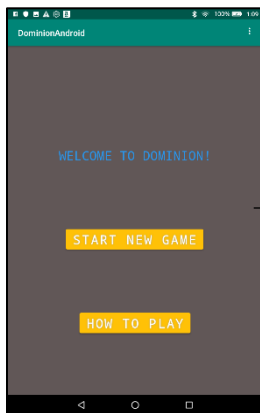
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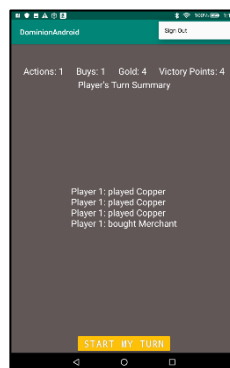
Opening page after log-in.
User may start a new game
or read the game
instructions first.

When it's the player's turn, they will
be able view the cards in their hand
and see their actions, buys, gold,
and victory points. In this phase, the
player wants to play cards to
increase their buys and gold.

Certain cards require
players to trash or discard
various numbers of cards.



In the buy phase, the player
can purchase cards to add
to their deck from the
game's stacks. The player's
ability to purchase cards is
based on their number of
buys and amount of gold.



When the player's turn is
over, they will see their turn
summary (and their
opponent will too). When it
is their turn again, they will
be able to view their hand.

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