

Description

For my project, I will be recreating two casino games, blackjack and slots. A user will be given the choice of entering into an existing game session, or creating a new one. A unique id will be given to each player at the start of every game session, and they can exit and reenter using this id.

The ids will be a 6 digit number starting at 200100 and up. For every new session that is created the id will add one to 2001 and randomly choose a number between 00 and 99 and concatenate this number to the first. For example if only one person has create a session and their random number is 63, they will start with 2001 and add 63, so 200163 is their session id. The next person will start with 2002 and might have a random number of 94, so their id will be 200294. I don't anticipate having more than 8,000 people play the game, so this assignment convention should not break.

A user will enter their name and start off with \$1,000. For games, can gamble the money on slots, or strategize with blackjack. The amount of money each person makes will be stored in a database. A list of top players can be viewed on a separate page, along with the amount of money they have made,

Visual Design

No screen shots this time ☹, but descriptions galore. The project will be kept in my site and will contain the styling, header, and footer of the rest of my portal. The game will be oversized and styled to fit into the theme of the portal.

The first choice, enter an existing game, or create a new one will be displayed by two large buttons a user can click. Once a game session is started, the user's stats will be displayed with a side bar at the right of the screen. This is where a user can go to another game (blackjack or slots), change their preferences (like their name), see how much money they have, their game session id, and view other player's stats.

The blackjack game will have a visual image of a green felt blackjack table and the game will be displayed there. A text field to the left will take the user's bet and the house's and user's cards will display at the top and bottom of the table, respectively. Visual cards will be displayed to enhance the game playing experience. The options of hit, stay, or fold will be to the bottom right of the cards. The game status will be displayed in the center of the table, for example when someone goes over or wins.

The slots game will be a fairly easy design. A picture of a slot machine will be the main background. A user will enter their bet to the right of the machine, and click the lever to 'pull' it. Ideally I would have some animation showing the rotation of each picture as they spin. I would also like to add more complicated rules to the game, such as the 9-pattern slot machines. For starters, I will only display the three columns and make up some rules for how the scoring works (100x money if all cherries, 10x money if all the same, 5x money if two cherries, 2x money if one cherry, 2x money if two are matching). The 9-pattern (3 columns, 3 rows) will have rules for each row and diagonals also.

Start Page

display the two options to start new session or go into existing one

if start new session,

- get the last id from the user table and add 100, then get random number and replace with the last two digits
 - display a text box for the user to enter their name
(only proceed if a username is entered)
 - go to game options – go to that game if selected, send session id in hidden post variable
- display blackjack game
- display slots game

Blackjack Game

display start of game

if user has entered amount and submitted

- store value into database
- start a new deck

(if no amount or negative do not do anything)

deal out cards

check if 21 or over for house and player, if not

player clicks hit

- deal another card to player
- if house is under 16, deal another card

player clicks stay

- if house is under 16, deal another card

player clicks fold

- store lose as 0 in blackjack table

if 21 or over is reached by either, record hit, miss, or tie in database

print out results of game, with change in money

display option to play again

Slots Game

if player has entered amount and pressed handle

- run slot machine
- store amount in database

(if no amount entered, do not proceed)

randomly choose number from 1-20 three times, these are the picture ids

(if animated, run animation for slot machine)

display the pictures related to the ids

look up amount won or lost for the sequence of ids

store this in the database

display the amount won or lost with the final total of the user's money

Top Players Page

query user table for players, ascending amount, limit 5, display to screen

query blackjack table for users, ascending bet, won=1, limit 5, display to screen

query slots table for users, ascending (bet times multiplier), limit 5, display to screen

User Preferences Page

display text field for user name and save button

if new user name entered

- store new name in database

(if no name entered, do nothing)

Database Schema

I don't know how I'm supposed to describe this. Link:

<https://spreadsheets.google.com/ccc?hl=en&hl=en&key=tc78C7tTHF1Mi0Rtznsg0Mw&authkey=CNOU3ME0#gid=0>

The user id will be stored with their name and grand total of money.

Each game (blackjack and slots) will have its each table with a record of each game played, with the user id, bet and outcome. This looks slightly different in the database because in blackjack one can either win, lose, or tie (1, 0, -1), and in slots, there is a multiplicity factor to each bet depending what came up.

Testing

On nearly every page, I will have a var dump, displaying everything in the database connected to that session id.

I will start with the first page, log in to a game session. I will make sure that it is creating a random number, and getting the next 100 digit number in the database.

I will then get the side bar working, since this should display the user id and name on every page. This will act as a double to be informative for the user and me as a tester to know when I'm in a game session or not.

I will build the two casino games separately and then integrate sql into them.

The blackjack game needs to keep track of a deck of cards and make sure to not deal the same ones more than once. The 'deck' that will be used will be display on the screen, each card with just their numerical values, there should be a 'in deck' pile, 'in play' pile, and a 'used' pile, with no overlapping.

After this the scoring will need to be tested. I will play with the house's cards facing up to make sure that the game is being scored correctly.

When this is all finished, I will add the scoring to the database. At the end of each game, I will store the score with the player's id. To make sure it saved, I will display the scores for that player.

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Week 13

Project 3 Proposal: Database

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Next I will test the slots game.

I will make sure I can randomly generate slot options and that the 'spinner' is truly showing random pictures.

The scoring will be verified next to make sure the slot pattern matches its correct score.

I will then store the score in the database, and display all information to that session id to make sure the information actually saved.