

Exam - 1

September 22, 2022

Objective

Create a simple 'Slot Machine' game app.

Motivation

Alerts, tab bar controller, auto layout, stacked views, data transfer.

Must Follow

You must follow the rules below.

1. Start your XCode project "**Exam1_LastName_FirstName**" (replace **LastName** with your last name and **FirstName** with your first name).
 - a. **DON'T DO** the following:
 - i. Start with any other project name and change the zip file name later.
 - ii. This will not be accepted at all.
2. You must have to do the exercise compatible with **XCode version 13.4.1** or **XCode version 14**.

Tips

- **Read the question carefully, then start coding!**
- **Build, Build, and Build**
 - If you add anything on storyboard -> **Build**
 - If you make a reference from storyboard -> **Build**
 - Do not wait until finishing all parts and build.
 - It is easier to debug after each single feature added.

Details

Create a multiple view iOS application using Swift as a programming language. Start your XCode project “**Exam1_LastName_FirstName**” (replace **LastName** with your last name and **FirstName** with your first name).

[4 pts] Design your interface to look like the screenshots [Figures 1 - 3, 5, 7 - 9]

- Design your UI for iPhone 11 in both **Portrait** and **Landscape** modes
- Pay attention to images, icons, colors, fonts and font sizes

Fonts: Gill Sans / Gill Sans Bold

Initial state of the game: **Credit = 100, Won = 0, Spins = 0, Bet = 1**

[1 pts] If user taps the button “↑ Bet”: **Bet = Bet × 2**. If **Bet ≥ 1000**, then reset **Bet = 1**.

[2 pts] When the user taps the “Spin” button: Check if there is enough credit available, that is, **Bet ≤ Credit**. If there is not enough ‘Credit’, raise alert [Figure 4] and reset **Bet = 1**.

Randomly select 3 pictures [Figure 3].

- If all three pictures are identical, then **Credit = Credit + 10 × Bet**;
set **Won = Won + 10 × Bet**; reset **Bet = 1**; set **Spins = Spins + 1**.
- If at least one picture is different, then **Credit = Credit – Bet**;
reset **Bet = 1**; set **Spins = Spins + 1**.

[1 pt.] Always keep your ‘Bank’ and ‘Game’ tabs synchronized. The counters ‘Spins’, ‘Won’, ‘Credit’ should be up to date all the time. [Figures 6,5]

[2 pt.] ‘Add credit’ button increases ‘Credit’ by the amount entered in the text field [Figures 7,8]. If the user enters the wrong input, an alert message is shown [Figure 6] and the input text field is reset to ‘0’.

[Bonus points: 2pt.] Rig the game! Bias it so that at the latest, the 4th spin gives a win.

Good luck and happy coding! 😊

Submission

Zip XCode project and submit to the blackboard. The name of your zip file will be automatically “**Exercise4_LastName_FirstName.zip**” (**LastName** is your last name and **FirstName** is your first name). One submission per person.

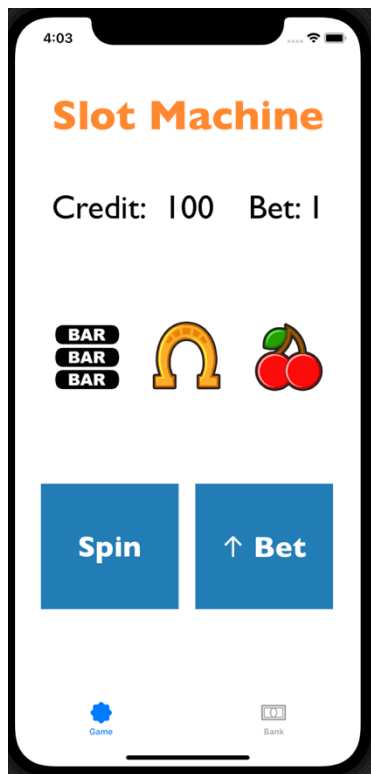


Figure 1

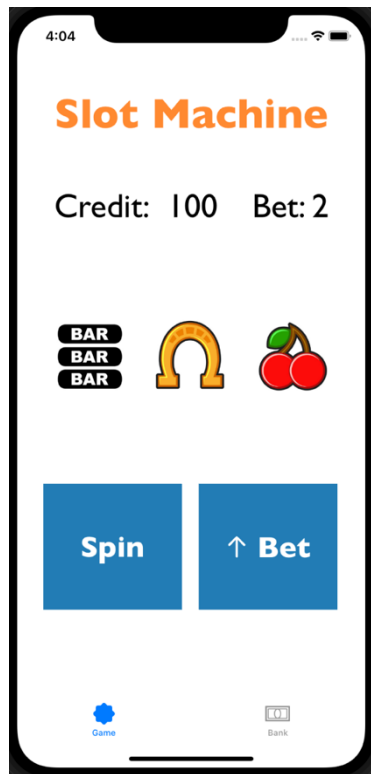


Figure 2

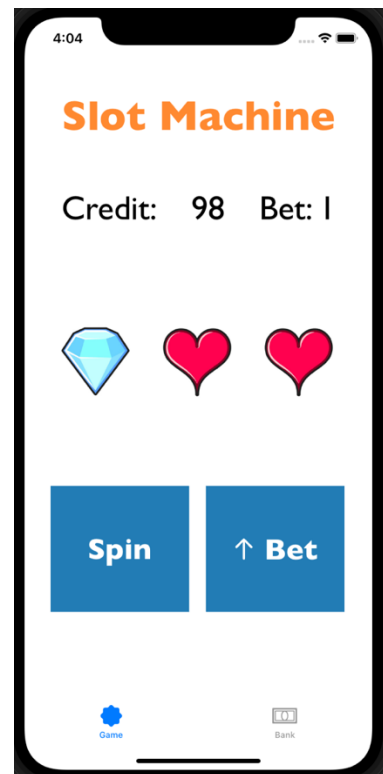


Figure 3

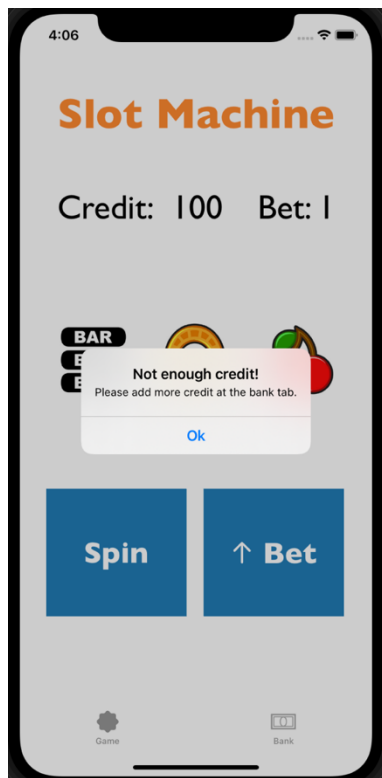


Figure 4

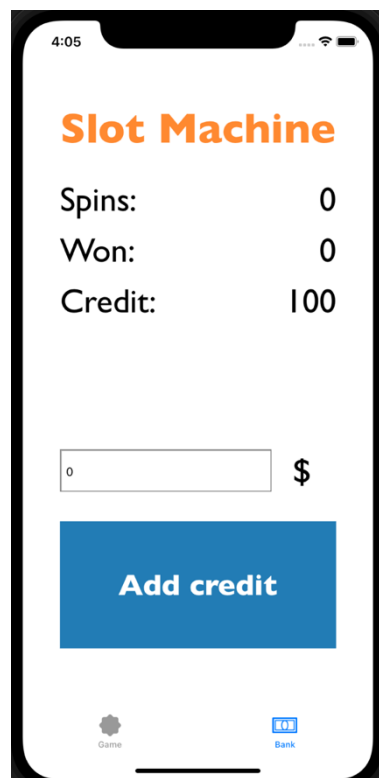


Figure 5

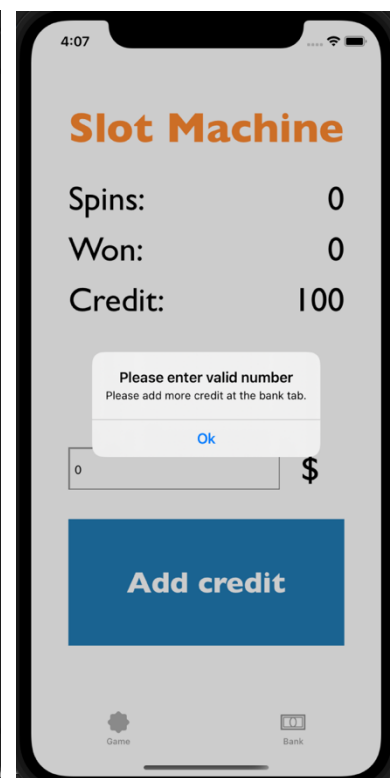


Figure 6



Figure 7

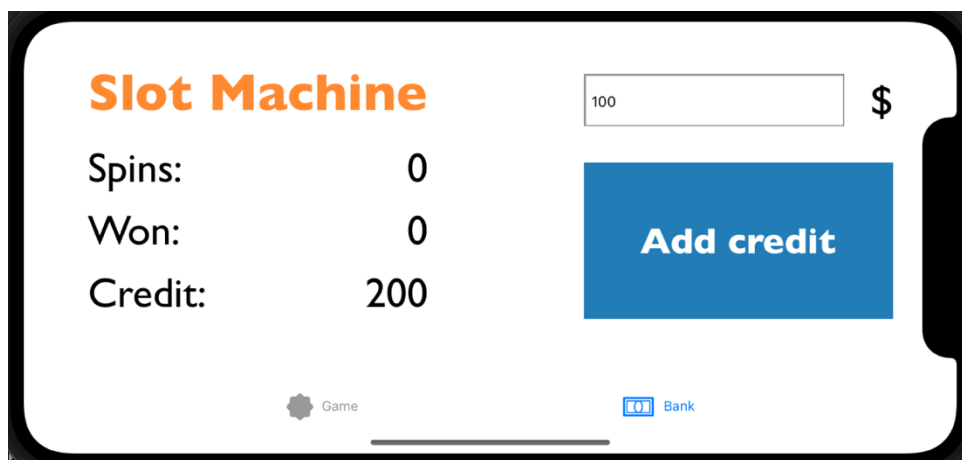


Figure 8

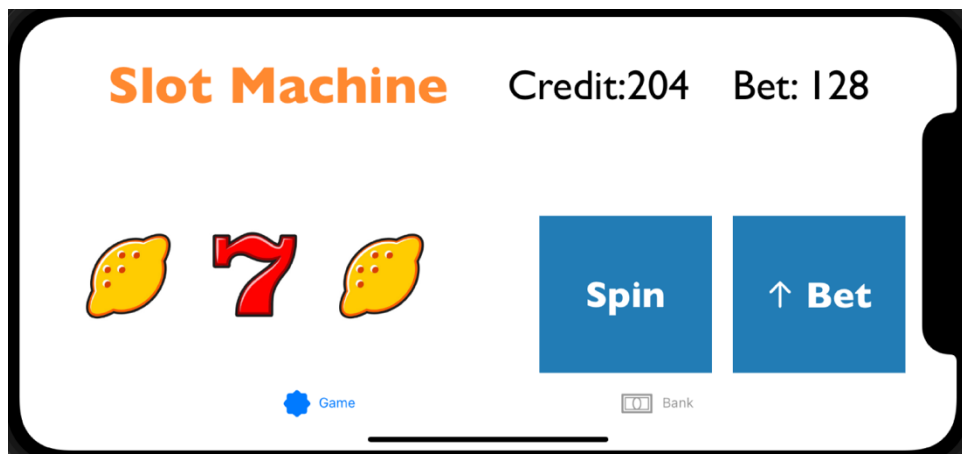


Figure 9