



# **COMP132: Advanced Programming Programming Project Report**

**UnoProject**

**Begüm Bıçakcı, 87071**

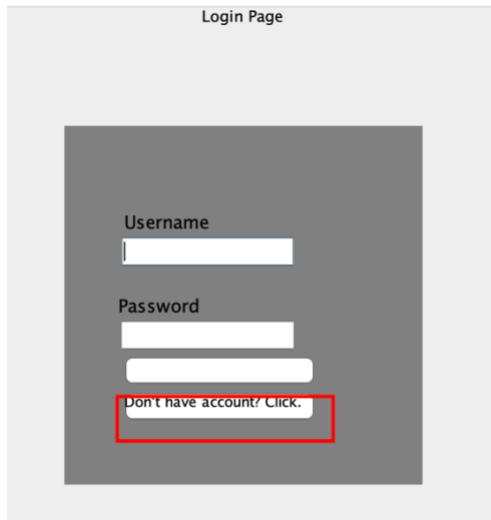
**Spring 2024**

## **Part 1**

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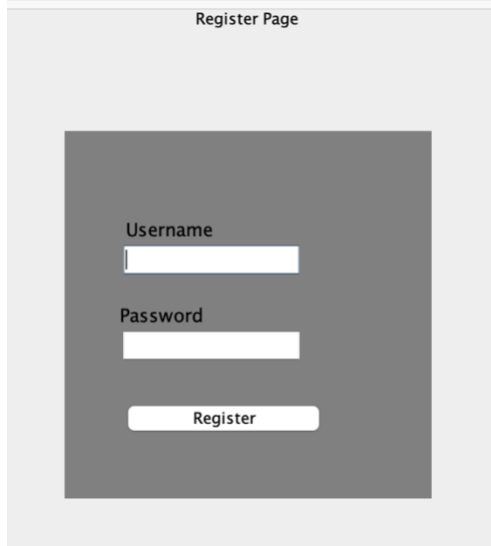
- List of users :  
Username : fiko password: 1234  
Username: lucas password: luca123  
Username: jingles password: 124
- Information about each user  
  
Username : fiko password: 1234 wins : 0 loses : 0 total games played : 0  
Username : lucas password: luca123 wins : 0 loses : 0 total games played : 0  
Username : jingles password: 124 wins : 0 loses : 0 total games played : 0
- List of existing game sessions created by the users: NONE

**Application usage information** *(In that part, describe how to use your application. You can add screenshots of the required steps a user should follow.)*



The screenshot shows a 'Login Page' with a dark gray background. It contains two white input fields labeled 'Username' and 'Password'. Below the password field is a white button labeled 'Don't have account? Click.' which is highlighted with a red rectangular border.

To play the game, first, you need to have an account. If you don't have an account, please click the button that has the label "Don't have account? Click." As you can see from the image



The screenshot shows a 'Register Page' with a dark gray background. It contains two white input fields labeled 'Username' and 'Password'. Below the password field is a white button labeled 'Register'.

Then, after clicking that button you will see a Register Page. In order to create an account you need to enter your username that you want to have and password then click the "Register" button.

After you click the "Register" button, it will put you on the Login Page again, and this time you need to enter your username and password you decided. After entering, you need to click the white button and you will be logged into the game.

After logging in you will see a button called "New Game" If you click that you will create a game. Then it will ask you to enter how many players you want.

After entering the amount you will be in the game and see 3 gray panels one of them is your deck and on the top one you can see player names and how many cards they have, and on the left bar there is a button called "Draw" which lets you draw as many cards you want. By clicking the cards you will play the cards.

## Part 2

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## Project Design Description:

- Class relations.  
I have used enum classes and they have relations between cards that are used for specifying their colours, numbers, actions, and types.
- Inheritances, type hierarchies, interfaces, abstract classes.

There is a Card abstract class which has NumberCard, WildCard and ActionCard subclasses. The card is an abstract class because NumberCard, WildCard, and ActionCards have mutual methods that have different implementations. There is Player Class which is the superclass of Bot. Bot is a subclass of Player because it has methods that player doesn't need to have.

- GUI components.

I used JFrame, JButton, JLabel, JTextField, JPanel.

- .txt file processing details

For .txt file processing in the register page when clicked the button I used FileWriter to write it to the userinfo.txt file and then when clicked the login button (white button) I used Scanner to read through the .txt file.

- Your game session loop implementation

The game session loop implementation is inside of the GameGui when a player clicks the button it checks the last played card and implements the effects then it increases the current player index and when the current player index is not our user's index (in mine it is 0) the bots start playing and every time it checks the last played card if it is a special card or not.

- Your computer bot implementation

In my computer bot implementation, I iterated through the bot's hand and I had a method called isPlayable(card) which checks if the card is playable (first colour then number then action then wild type), and if it is playable the bot plays the card and increases the current player's index.

## References

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I didn't use any references.