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INF 154 Assignment 5

Practical #: 5

Topic: Practical Lecture 5

– Reinforce the following concepts

- **If and Switch statements**
- **OpenFileDialog control**
- **Edit properties of the various GUI elements**
- **Use the C# random class to generate random numbers**

Practical Name: INF154Prac5xxxxxxxxx (where xxxxxxxxx is your student number)

Due: Monday, 24 April 2023 at 08:30

Code

You will need to code a program to be able to play a simplified version of the game, War. This is a card game and to be able to play against the computer you will be generating random numbers. These random numbers will correspond to different cards. Before the user can start the game, they will need to register and upload a profile photo. Scores will need to be kept to help see who is winning, between the dealer and the player.
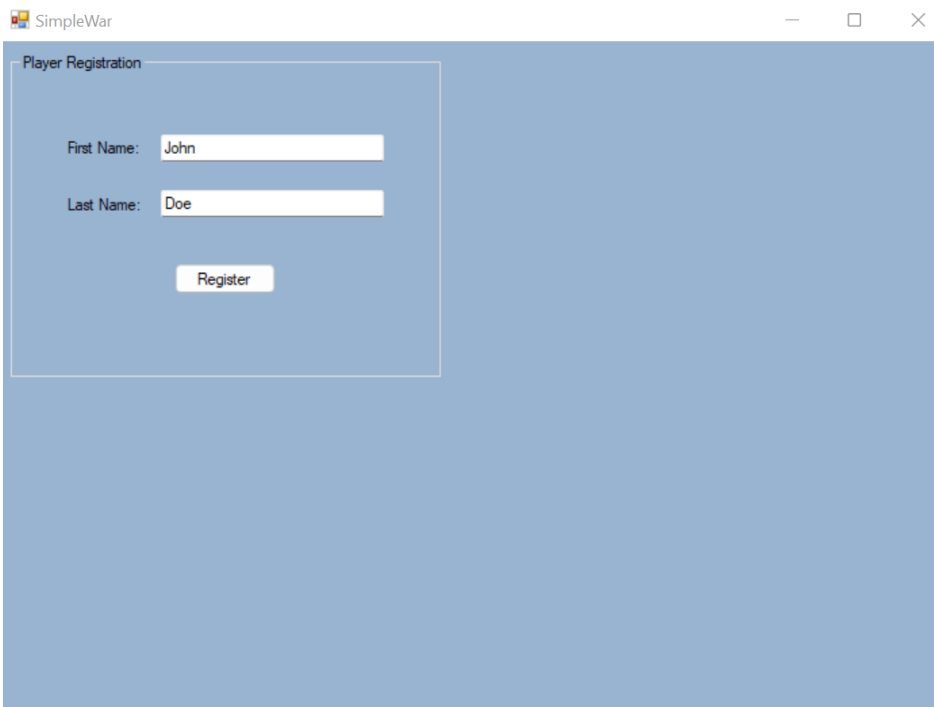
- **Rules**
  - 1v1 against the computer, higher valued card wins.
  - You need to register before the game becomes available, your full name and profile photo need to be captured.
  - A card is drawn for each participant, the player and the computer.
  - If the computer's card is greater or equal to the player's card, then the computer wins. The computer's score is then increased by 1.
  - If the player's card is greater than the computer's card, then the player's score is increased by 1.

In the table below are the numbers you need to check for in your switch statement. If these values are randomly generated, then the number given needs to be replaced with the appropriate text version of the number. For example if the number 12 is generated, "QUEEN" will show in the textbox instead of "12".

Number	Text version of number
11	JACK
12	QUEEN
13	KING
14	ACE

Step 1: Create a "Player Registration" group box to contain the information required to gather the first name and last name of the user. The "Register" button must make the "Player Details" group box appear (be made visible).

Step 2: Create a "Player Details" group box where the player will upload their profile photo. You need to make use of the OpenFileDialog control and a picture box to display the uploaded image. Only when the picture is selected will the following group box appear (be made visible).

Step 3: Create a "Simple War Game" group box with all the elements needed to play the game against the computer.

Step 4: The "Deal" button must do the following:

- Generate random numbers for both the player and the dealer and display these in the relevant textboxes.
    - Random numbers between 2-14 must be generated.
    - The numbers 2 and 14 must be inclusive.
- Check for if the text version of the number needs to be displayed, according to the rules described in the table on page 2.
- Increment the scores for the player and dealer appropriately.
- Display a **green** panel if the player wins and a **red** panel if the dealer wins.

Note & Tips:

- Your **"score"** variables need to be **global** so they are not reset every time.
- Refer to the theory lecture 5 notes for help with the OpenFileDialog control and random number generation.
- Set the "**SizeMode**" property of the picture box control to "**StretchImage**".
- The computer = The dealer

Marking RUBRIC

Program	Mark
No errors (The program starts)	1
Created required form design and all elements are present	2
Register button performs the required actions and empty textbox validation	2
Set Player Picture button allows for image upload	2
The **Deal** button correctly plays the game	3
Random number generation for dealer and player	2
Group boxes are made visible in the correct order	1
The score is incremented correctly	1
Sufficient use of **comments** in your code	1
Total	**/ 15**

Submit your Practical 5c project on ClickUP as follows:

Due Date: 24th April 2023.

Name your project, **INF154Prac5xxxxxxxxx** (where xxxxxxxxx is your student number) and compress (zip) your project.

Submit under the Practical 5 submission link.