Games Development – Web Development and Databases
Year 3
2023/2024 Academic Year

Assignment 2 – Blackjack for the Web.

Motivation for Assignment

The porting to the web of the standalone, text-based Blackjack game has begun, but work remains. The goal of this assignment is to produce a working version of Blackjack for the Web which mimics the functionality required for Assignment #1 but uses Python, Flask, and Jinja instead. Additionally, this assignment explores technologies for enhancing the look'n'feel of the webapp.

Details of Assignment

Version #1: You are required to take the webapp code produced to date and complete it, i.e., produce a working version of Blackjack for the Web which (like the text-based version) tells the user if they have won or lost, and when they have achieved "Blackjack" (or the dealer has). Like before, the player should be asked if they wish to play again and, if they do, your UI should reset as appropriate. With this version of your webapp, the emphasis is on delivering a working solution which shows the correct card PNGs for the player and dealer "hands". There is no requirement to make your webapp "look nice", it just has to work.

Version #2: Use CSS to enhance the look'n'feel of your webapp (i.e., make it look nice). Place your CSS file in Flask's `static` folder, then add the CSS link to your `base.html` template (which globally enables it for all of your webapp's pages). [Do **not** use JavaScript, only CSS].

Version #3: Take some time to research the HTMx technology (see: https://htmx.org/) which allows you to add interactive elements to your webapp without having to write any JavaScript code. Use HTMx to turn your webapp into a single-page application. Once the game starts, your web browser should never refresh the entire screen, but instead use the facilities of HTMx to selectively update parts of the page as required. [Once again, do **not** use JavaScript, only HTMx].

Marks Allocation

- **25%** with the following breakdown: up-to 10% for Version #1 (a working webapp), up-to 5% for Version #2 (CSS integration), and up-to 10% for Version #3 (creating a single-page webapp with HTMx).

To submit your work, ZIP the entire contents of your webapp folder(s), then copy the ZIP to your University OneDrive, before sharing the created OneDrive link with **paul.barry@setu.ie**.

The due date/time for this assignment is: **11:00am on Wednesday October 25th 2023**.

This is an individual assignment: you are expected to work on your own, and that the work you submit is written/created by you. You must declare if this is not the case. If you collaborate with anyone else, this must also be declared.