

# **CS 795/895 Human-Computer Interaction**

## **HW3**

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### **Introduction**

I have decided to use the interface, which I have discussed in my homework 2. It was about simplifying the check-in process for a student to enter a LAN gaming arena called Esports. Esports is always busy with a lot of students playing their favorite games. When a student is willing to spend his time in Esports, he cannot simply walk into Esports. He must unlock his phone and open any Web search engine such as Google Chrome or Safari. He must search for a website called Recwell portal. He then searches for Esports on that portal. After clicking on Esports on the website, he has to log in to his student account using his student credentials. He must declare that he has not been infected with any kind of virus in the past 90 days (about 3 months) on the website by checking a few boxes. He must register for a time slot on when he is planning to visit Esports. Later, he will be allowed into Esports, and he could sit at any computer station as he wishes. This process is good but could be better.

The following paragraph shows how this process can be made better. When a student checks in on the website, he does not get to choose which desktop station he wants to play on. The check-in also does not offer what accessories the student needs. Accessories include headphones, joysticks, etc.

Sometimes, a student checks in online and when he arrives at Esports, he will not be able to find any desktop available for use. Most of the time, it is an issue as all the computers are occupied by Esports players. The above problems can be resolved with Human-computer Interaction. When a student tries to check-in online, he should be able to see which computer is available and he will also be able to choose which accessories he will be needing. If a student wants a computer number 25 and he also requires headphones, he can get to choose that online and walk in freely to play his game without any hassle. The student will also get to select which computer he wants to play on if there are many computers available on the website.



*Figure 1*

## **ODU Recwell Application**

I wanted to create an application for the Recwell portal for Old Dominion University. A student can download the application from the app store, and he can access all the facilities of the university with one click. Old Dominion University has a check-in procedure for students whenever a student tries to use any of the college facilities like gym, Esports, swimming pool, group fitness classes, shuttle courts, and special events. A student can stay signed in on the application with his student email ID. This would prevent the student from logging in every time he wants to use any of the university's facilities. This is a hassle-free process for students wanting to use the Recreation and Wellness facilities.

The video game sector is immensely large. In fact, it is larger than the movie and music industries combined, and it is only growing. Though it doesn't get the same attention that the movie and music industry does, there are over two billion gamers across the world. That is 26% of the world's population. Gaming is Esports is a LAN Gaming center where many students come and play their favorite games every day. There are also many tournaments that take place in the Esports Arena. Students from various universities register for the events and compete with students from other universities. Esports tournaments are conducted on a very large scale and the winners of the tournament win very huge amounts of money. Thus, students need to practice their games and improve their skillset as they represent their universities. Therefore, we create this application for the students. Below is a sample image of how the application is going to be.



*Figure 2*

## **Persona**

In this case, I have created a fictitious person who is a student at Old Dominion University. I have given that person a name and a few characteristics to form a personality for that person. As our topic is based on gaming, our fictitious character is a hard-core professional gamer who has attended and won many gaming tournaments. He has been doing a lot of hard work to improve his skillset for his upcoming competitions. He also does live streaming of his gameplay on different gaming platforms such as Twitch and YouTube. He practices daily at the Esports Arena for two hours in the evening. Every time he goes to practice, he has to follow the regular check-in process which is hectic. Thus, our ODU Recwell application comes into play.



*Figure 3*

### Task scenarios

We have a regular process to check in to the Esports Arena as already explained in the above paragraphs. I will be showing how our persona Siddharth follows the regular check-in process in the form of an HTA (Hierarchical Task analysis) and will also be showing another hierarchical task analysis of the new check-in process, which we will be creating with help of the application. Both the task scenarios will explain how the new process is a hassle-free process for students rather than the old check-in process.

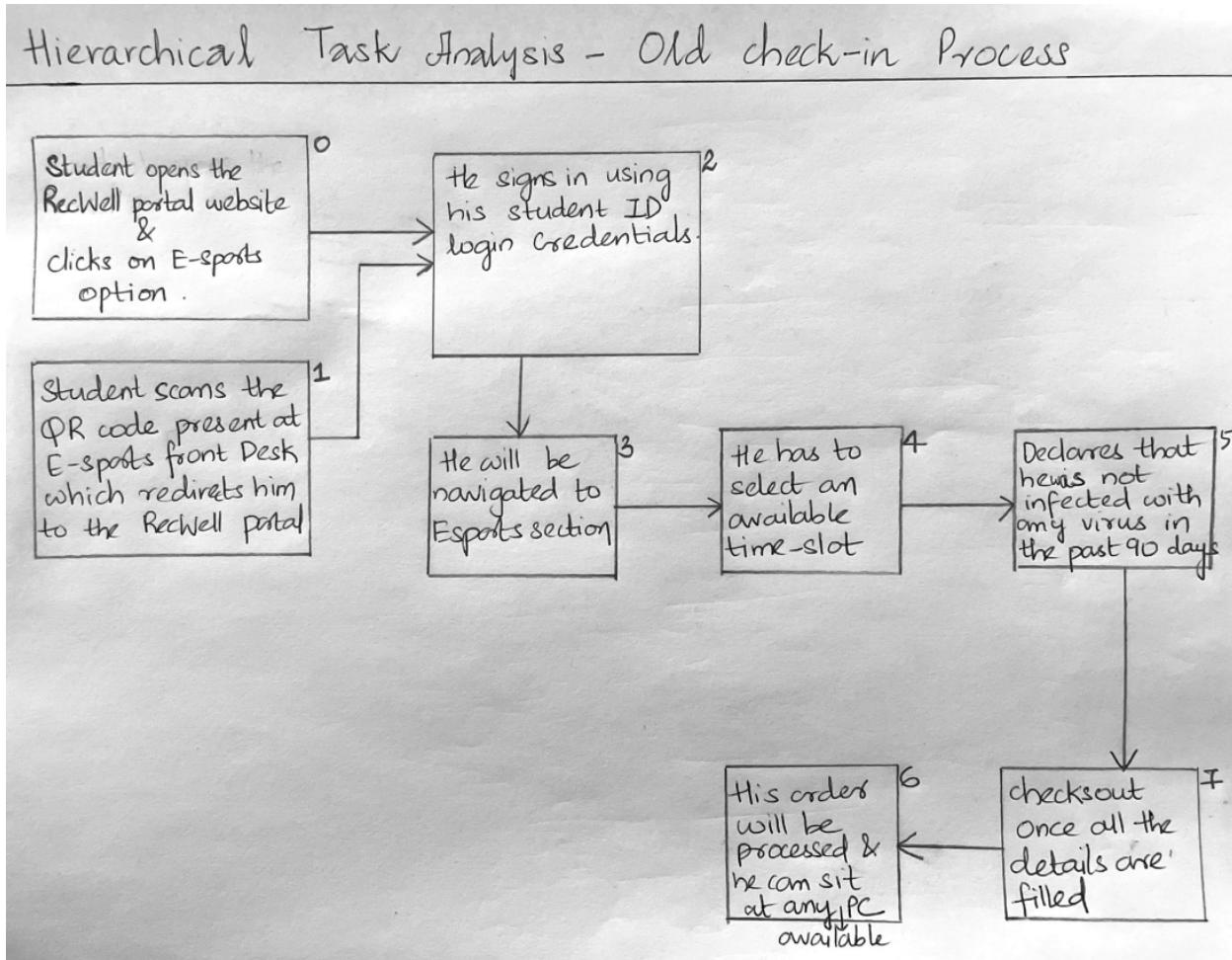


Figure 4

Figure 2 describes the task scenario of the old check-in process. If Siddharth is a first-time user, he has to follow steps 1,2,3,4,5,6, and 7. If Siddharth is a regular user, he has to follow steps 0,2,3,4,5,6, and 7.

## Hierarchical Task Analysis - New Check-in process

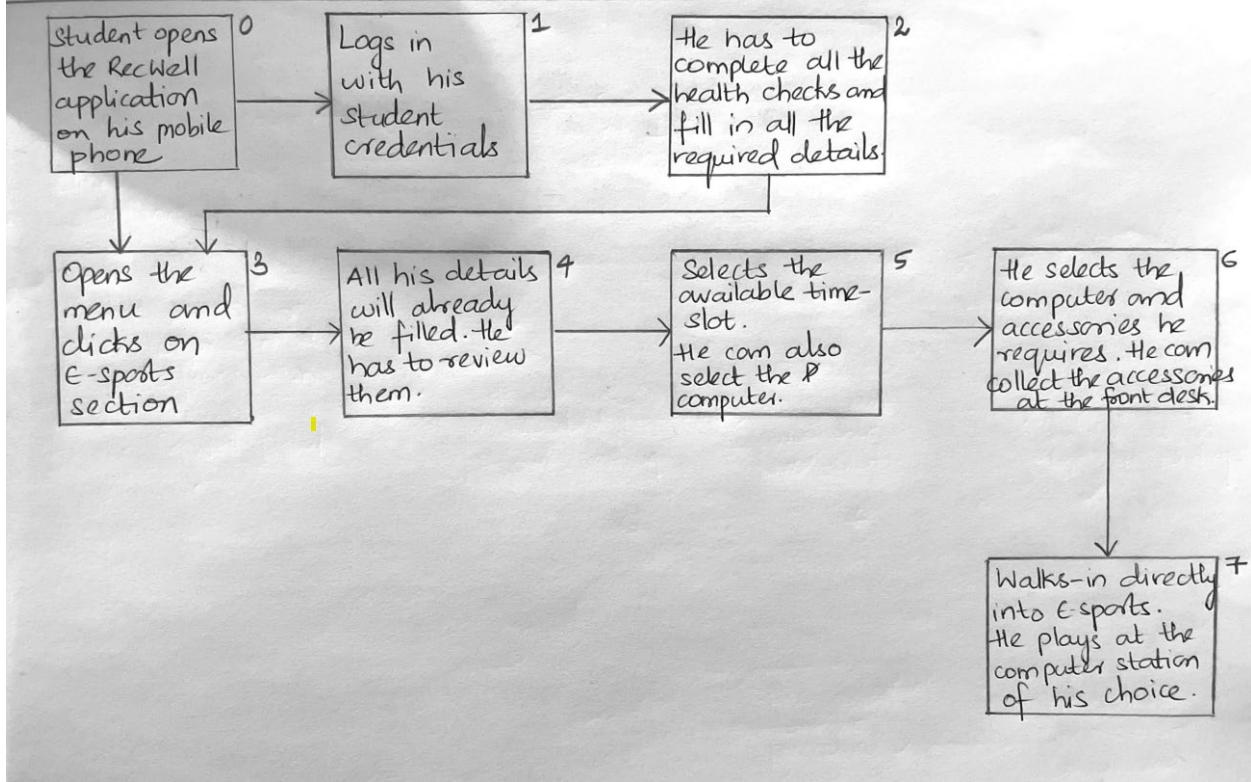


Figure 5

Figure 3 describes the task scenario of the new check-in process. The application will be directly connected to the Monarch Wellness portal and hence, there are no health checks required. If Siddharth is a first-time user, he has to follow steps 0,1,2,3,4,5,6, and 7. If Siddharth is a regular user, he has to follow steps 0,3,4,5,6, and 7.

### **Use cases for student**

- 1) Student opens the mobile application.
- 2) He tries to log in to the application
- 3) Application asks for two-factor authentication.
- 4) Student enters the passcode, and he will be navigated to the first page of the application
- 5) The system offers a number of facilities provided by the university
- 6) The student tries to click on the Esports option.
- 7) The system offers different types of consoles available in Esports.
- 8) Student selects a console.
- 9) System offers different time slots and also the number of devices available.
- 10) Student makes his selection and proceeds on to the next page.
- 11) System asks him for his daily health check.
- 12) Student completes the daily health check.
- 13) System asks him for the accessories he needs.
- 14) Student selects the accessories he will be needing and confirms the selection.
- 15) System confirms his selection and registers his PC for the selected time slot.

### **Alternatives courses for the student user**

- 1) Student or the user can register for a PC only 20 minutes prior to his arrival time. If the student does not show up after 20 minutes, he will be provided with a grace time of 5 minutes. If the student does not show up in spite of the grace time, his registration will be canceled, and a penalty will be added to his account.
- 2) After a total of 3 penalties, the student will be charged with a fine of 50 dollars.
- 3) In order to avoid penalties, the student has to cancel his Esports appointment 10 minutes prior to his arrival time.

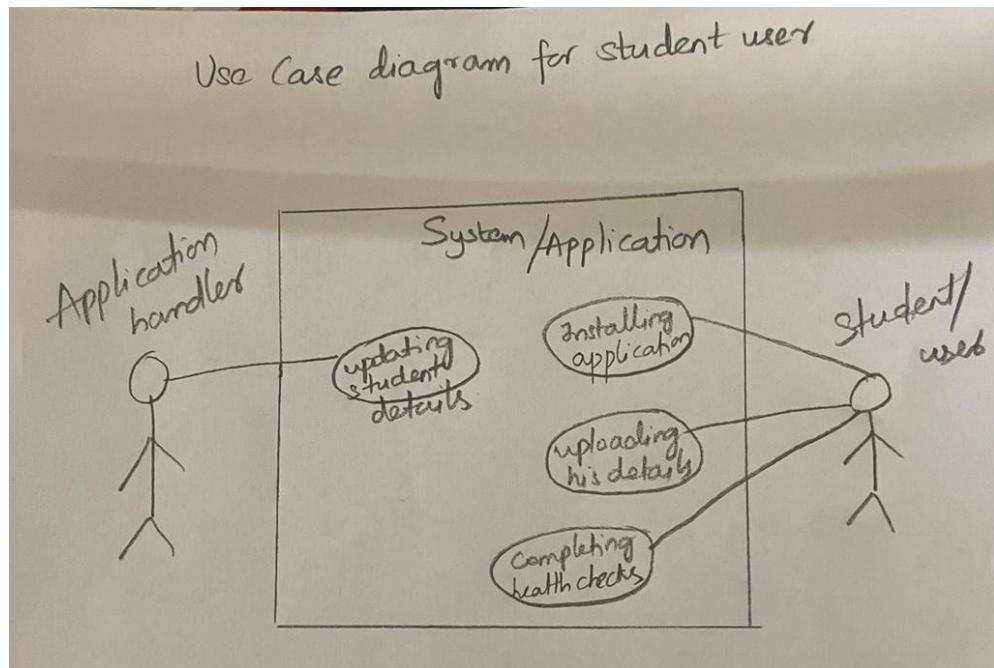


Figure 6