

UNIVERSITY PARTNER



Module code:

4CS001

Module Name:

Introduction to Programming and Problem Solving

Module Assessment:

Coursework 2

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Section: L4CG4

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Questions

1. What are the most challenging aspect of the coursework task?

The most challenging aspect of the coursework task is to create algorithm for playing Noughts and Crosses(tic-tac-toe). It requires the understanding of the game tic-tac-toe which helped to make the set of rules and decision-making processes to include defensive tactics for computer player while similarly making offensives charges to obtain victory. Additionally, adding features such as saving scores and loading scores on leaderboard was one of the challenges I faced during the coursework. It requires good understanding of file handling to overcome this feature. It is quite a challenging part for the students who are new to this concept. Error handling is quite important to address the user for the wrong inputs they have entered the console to the user experience satisfactory. Overall, good knowledge of programming, algorithm, debugging, file handling is required to make well-functioning Noughts and Crosses game.

2. How did you go about completing the task?

To complete the task to make Noughts and Crosses game, I researched about the game principles and strategies used for game to have the basic knowledge of game. Then I developed the algorithm of the game and structure of the game by using game logics. After the algorithm was developed, I write the code in python. To check the code is working, I carried out testing, debugging, fixing any errors that arise. I created the features of loading and storing data using file handling function. Similarly, error handling was carried out too to notify the user for error input inserted with the help of file handling.

3. What have you learned over the course of completing this coursework task?

The coursework provides me with a valuable learning experience while completing this coursework, I got the idea of software development and game design. Firstly, I gained knowledge of algorithm concepts particularly in game design and decision making. Therefore, I refined my programming skill in python by translating theoretical concept into functional code which involves game logic, designing data structures, managing I/O operations and file handling. By testing and debugging, I gained the knowledge of importance of attention to detail by making sure the reliability of the software. Overall, this coursework assignment have improved my understanding in algorithm, python programming, file handling and error handling, equipping me with the knowledge and skills that can be used in the real world of software development.

