SOFTWARE

DEVELOPMENT

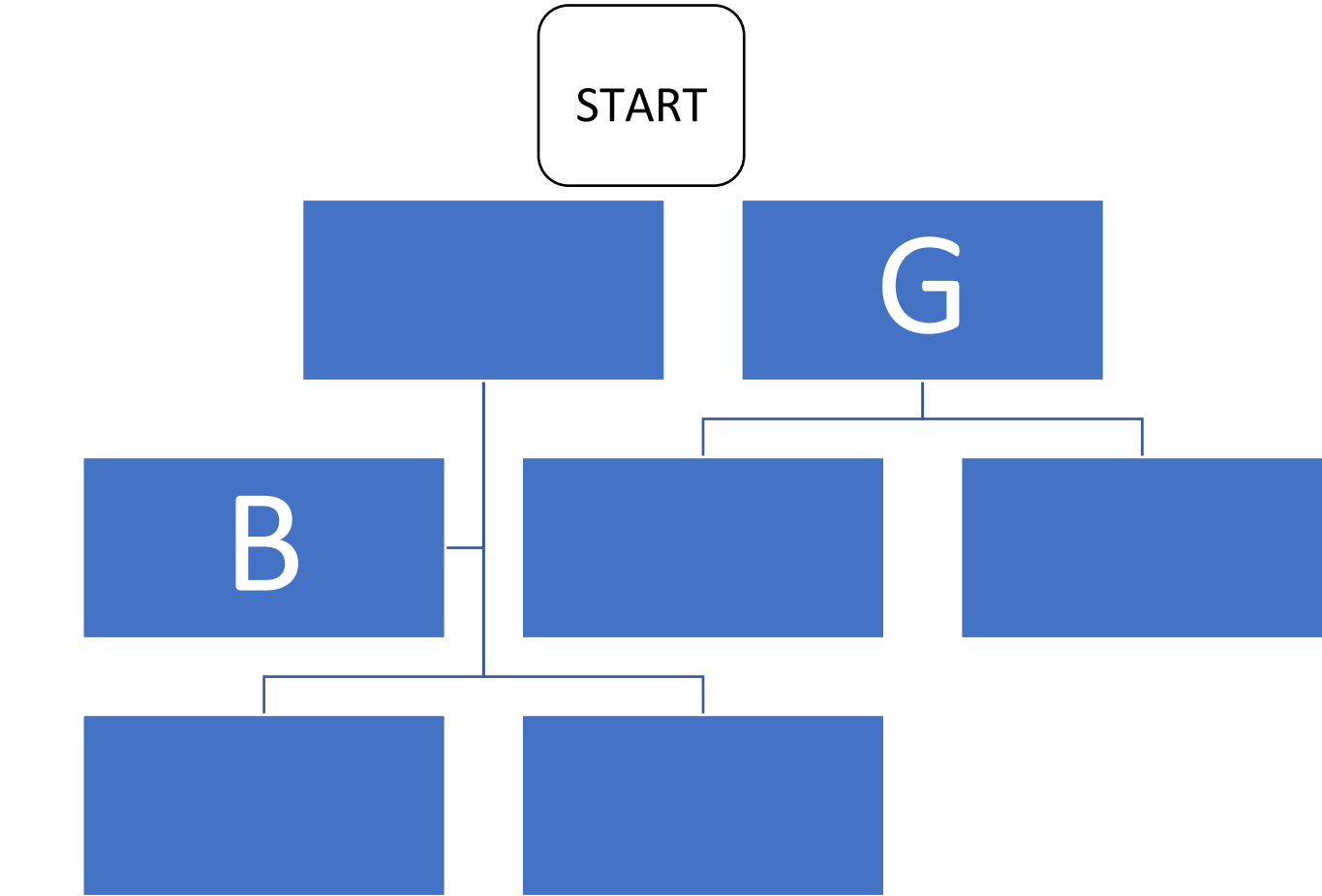# FUNDAMENTALS-II

MINOR PROJECT

WWE CARD GAME

PROBLEM STATEMENT

<u>WWE TRUMP CARD GAME:-</u>

We all have played the WWE trump card game in our childhoods, which was really fun to play. But duplicating the same, using coding is a different challenge altogether. So this project deals on the way to implement the same game using C Programming Language with the help of some data structures and complex algorithms. The game consists of a 1v1 CPU vs User card battle, where 4 cards each are distributed randomly to each player and they battle it out until one or both players have no cards left. If the user wins the game, a card will be added to his collection as reward and if he loses, he will lose a card from his collection. The game has 3 difficulty levels: Easy, Moderate, and Difficult and a ranking system which shows which player is topping the leaderboard with most wins or most losses. It consists of a Register/Login system. To play the game one needs to register his/her account first and then play and try to rise to the top of the ladder and become the best player in the game. User can check his card collection, See where he stands in the rankings. The reason we chose this project was because it had a great application of the queue data structure(FIFO), the fisher's shuffling algorithm to shuffle the cards, using file handling to create a leaderboard system and the register/login system, and using the sorting algorithm. We learned how important these data structures and algorithms are to create any application or game. We also learned the importance of file handling in storage of data like we used in leaderboards and register/login system.

FLOWCHART

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│ REGISTER   │ │   LOGIN   │ │ RANKINGS   │ │ EXIT   │
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```
                          START

        REGISTER      LOGIN                    RANKINGS      EXIT

   PLAY GAME   CHECK        HOW TO PLAY   BACK    MOST WINS   MOST LOSSES   BEST W/L   BACK
              COLLECTION                                                    RATIO

      SET
   DIFFICULTY

   EASY    MEDIUM    DIFFICULT

            TOSS

   NEXT TURN   SHOW HAND

    IS DECK
    EMPTY?

      EXIT
```