**Requirements:**

The Randomizer program will open with a list of options for the user to select, 1-6. Each option will execute a different part of the Randomizer program such as a dice roll, a coin flip, a random card, etc, or quit the program. There will be a base “number” class since all of the classes will use number values to generate a random value. The coin flip will use just 2 int values, while a dice roll would use 6, etc. Once the user selects an option in the main menu, it takes the user input and starts to execute the specified part of the program and then shows the output. It then will take that output and write it to a text file or create the text file if it isn’t there already and then write the data. After that, it will then read the data back into the program and display it to the user.

***ClassName: Number***

Data Fields:

n: int

output: String

Method and Constructors:

Number()

Number(n)

***ClassName: TipCalc***

Data Fields:

meal\_amount: double

tip\_percentage: double

Method and Constructors:

Result()

***ClassName: RandomCard***

Data Fields:

Suits[]: String

Cards[]: String

Method and Constructors:

Result()

Random()

***ClassName: DiceRoll***

Data Fields:

n: int

Method and Constructors:

Result()

***ClassName: RandomNumber***

Data Fields:

n: int

Method and Constructors:

Result()

Random()

***ClassName: CoinFlip***

Data Fields:

n: int

output: String

Method and Constructors:

Result()

Random()