**Rolling the Dice**

**Minor Project**

**Task 1:**

A basic program for playing a single game of Roll The Dice.

**Task 2:**

Amenu-driven program to allow the user to play more than one game of Roll The Dice.

**Description of Roll The Dice**.

Roll the Dice is a computer game, in which the player is asked to roll two dices by pressing . Each dice has six faces, showing numbers 1, 2, 3, 4, 5 and 6 on each of them, respectively. Once the two dices have been rolled, the values of the two upward faces will be added.

If the sum of the two dices is 7 or 11 on the first roll, the player instantly wins!

If the sum of the two dice is 2, 3 or 12 on the first roll, the player instantly loses!

If the sum of the two dice is 4, 5, 6, 8, 9 or 10 on the first roll, that number then becomes the player’s ‘target sum’. The player will then be required to continue rolling the two dice until they have two values that add up to give their ‘target sum’. However, if they roll the sum of 7 before achieving their ‘target sum’, they will lose!

**Pseudo code for basic program.**

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| Introduction | The user is told the name and rules of the game. |
| play = True | Enables the option for ‘play’ to be recognised by the program. |
| from string import lower | Enables the string module to work only via lower case functions. For example if the user input “Y” instead of “y” the program will not recognise it as it is case sensitive |
| from random import randrange | Enables the random module to import from the randrange function which is yet to be set. When asked to do this, python will automatically generate random numbers set in the parameter of the randrange function |
| answer = "y" | Ensures that the while loop condition is True initially. |
| answer = raw\_input | Prompts and gets the user to input “y” or “n”. |
| play = ('n', 'no') while play and lower(answer) != "y" | Enable the action: if play = "n" game must be restarted. |
| if play == ('y', 'yes'): | Enable the action: if play = "y". Game continues and user is reminded of the rules. |
| else: play == ('n', 'no') | Enables the program to carry out previous instructions. |
| roll = raw\_input("") | Prompts user to press key to roll the dice. |
| die1 = randrange(1,7)  die2 = randrange(1,7)  total = die1 + die2 | Conditioning randrange parameters from 1 to 6. Conditioning randrange parameters from 1 to 6. Adds up the two generated numbers. |
| if total == 7 or total == 11: | The user will be told that he/she has won the game. |
| elif total == 2 or total == 3 or total == 12: | The user will be told that he/she has lost the game. |
| else: roll = raw\_input("") | The user is now given a new ‘target sum’ and is prompted to press the key. Enable repetition of messages, instructions and actions. |
| if total1 == 7: | The user will be told that he/she has won the game. |
| elif total1 == total: | The user will be told that he/she has lost the game. |

Similarly based on the pseudo code for the basic. Develop the menu drivine program for rolling the dice.