Computer Programming-Mini project

Rock-paper-scissor game

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C code :-

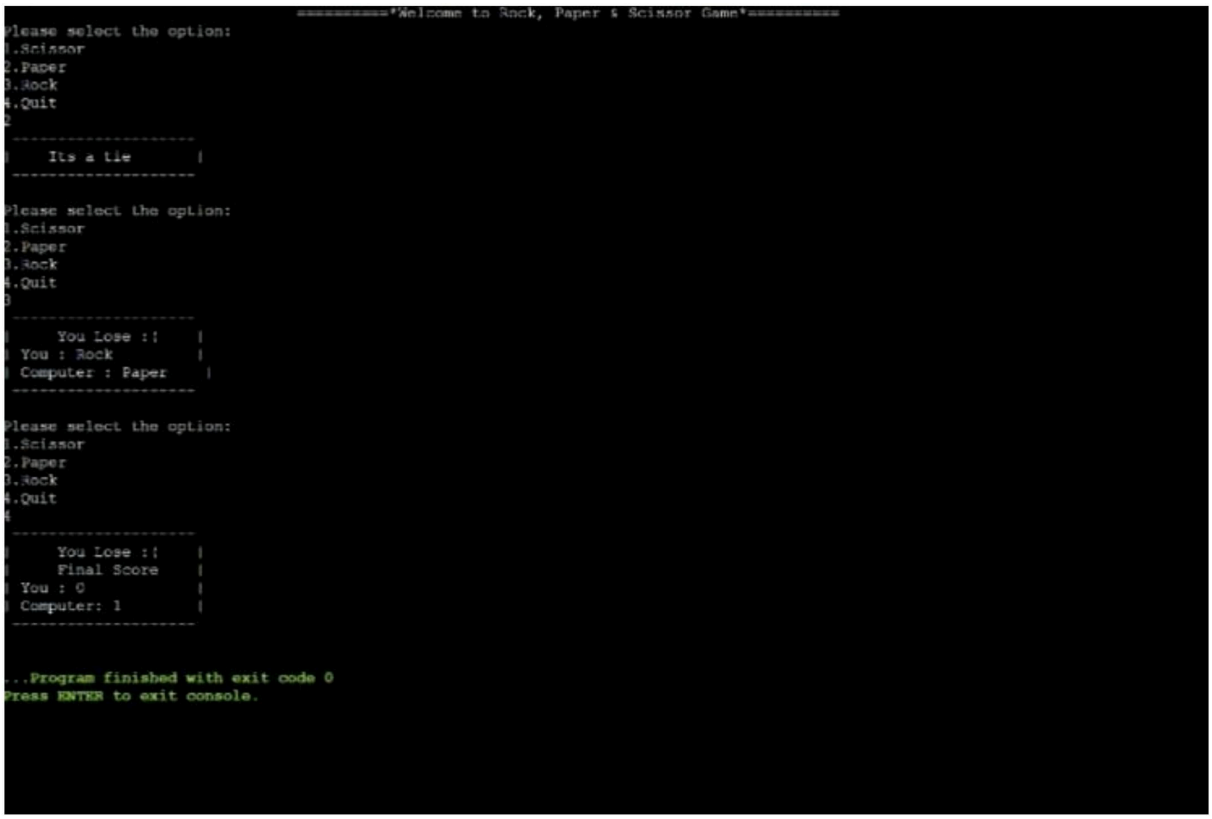
```
#include<stdio.h>
#include<stdlib.h>
#include<time.h>
int usrScore = 0, compScore = 0;
void check Options(int usr,int comp){
        // 1 = scissor 2= paper 3=rock
        if(usr == comp){
                printf(" --------------------\n");
                printf("|    Its a tie       |\n");
                printf(" --------------------\n");
        }
        else if(usr == 1){
                if(comp == 2){
                        printf(" --------------------\n");
                        printf("|      You Won :)    |\n");
                        printf("| You : Scissor      |\n");
                        printf("| Computer : Paper   |\n");
                        printf(" --------------------\n");
                        usrScore++;

                }
                else {
                        printf(" --------------------\n");
                        printf("|     You Lose :(    |\n");
                        printf("| You : Scissor      |\n");
```

```
                printf("| Computer : Rock    |\n");
                printf(" --------------------\n");
                compScore++;
        }
}
else if(usr == 2){
        if(comp == 1){
                printf(" --------------------\n");
                printf("|      You Lose :(   |\n");
                printf("| You : Paper        |\n");
                printf("| Computer : Scissor |\n");
                printf(" --------------------\n");
           compScore++;
        }
        else {
                printf(" --------------------\n");
                printf("|     You Won :)     |\n");
                printf("| You : Paper        |\n");
                printf("| Computer : Rock    |\n");
                printf(" --------------------\n");

                usrScore++;
        }
}
else if(usr == 3){
        if(comp == 1){
                printf(" --------------------\n");
                printf("|      You Won :)    |\n");
                printf("| You : Rock         |\n");
                printf("| Computer : Scissor |\n");
```

```
                printf(" --------------------\n");
                usrScore++;
        }
        else {
                printf(" --------------------\n");
                printf("|     You Lose :(    |\n");
                printf("| You : Rock         |\n");
                printf("| Computer : Paper    |\n");
                printf(" --------------------\n");
                compScore++;
        }
}
else if(usr == 4){
        printf(" --------------------\n");
        if(usrScore > compScore)
        printf("|      You Won :)    |\n");
        else if (usrScore < compScore)
        printf("|     You Lose :(    |\n");
        else
        printf("|      Its a tie     |\n");
        printf("|     Final Score    |\n");
        printf("| You : %d           |\n",usrScore);
        printf("| Computer: %d       |\n",compScore);
        printf(" --------------------\n");
        printf("\a");
}
else {
        printf("\n Invalid Option");
}
```

```
}
int main() {
int userChoice,compChoice;
srand(time(0));
printf("\t\t\t\t==========*Welcome to Rock, Paper & Scissor Game*==========");
while(userChoice != 4){
printf("\nPlease select the option: ");
printf("\n1.Scissor");
printf("\n2.Paper");
printf("\n3.Rock");
printf("\n4.Quit\n");
scanf("%d",&userChoice);

compChoice = (rand() % 3) + 1;
checkOptions(userChoice,compChoice);
}
}
```

Output :-



Conclusion:-

The project is a basic computerized stone paper scissor game. It uses the basic if else functions as the main key to develop a major portion of the code. Along with that other functions used involves the choice function, print functions, while loop etc.

For making the game computerized we had to make the computer choose a random option for every time the user makes a choice. To achieve this the compChoice option is there followed by rand function which makes the computer choose a random random choice between 1 to 3.

To make the rectangle pattern around the result, each time after a choice was made we choose the simple printf function to print dashes .

The basic outline of the code is starting by using the choice syntax to provide 4 choices to the user 1.scissor, 2.paper, 3.rock, 4.exit . The user can choose any number from 1-4 to choose one option. If the user presses any number except 1-4 then then console will display invalid input. The first 3 options are to play the game from which the user can win, loose or have a

tie with the computer which chooses an option randomly from 1-3.When the user is done playing the total amount of wins of user and computer are calculated and the winner is decided accordingly. The result is displayed in a rectangular dashed box and it shows the result (which in the above case is the user losing).

In conclusion, the rock paper scissors game is made by using some basic c program functions which are used to generate the above game.