**BVRIT COLLEGE OF ENGINEERING FOR WOMEN**

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**DATE: SIGNATURE:**

PROBLEM STATEMENT

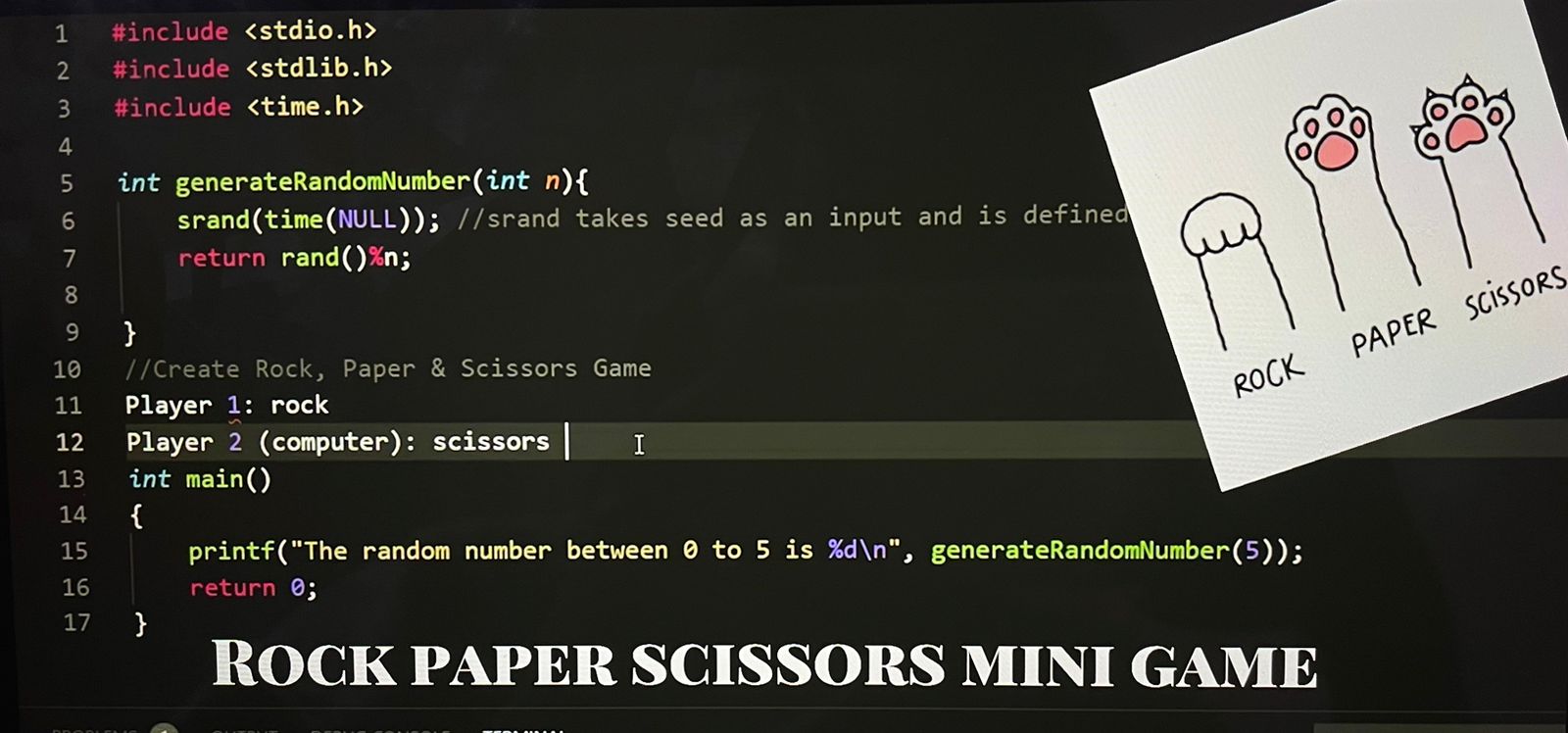
As we all are familiar with the concept of the game. In this game, we have two players. In our program, player 1 will be the user, and player 2 will be the computer. Player 1 selects either rock, paper, or scissor. The computer does not know about what player 1 has selected, so the computer randomly selects any item (rock, paper, or scissor).

In this game, each player has 3 turns. The player who gets the point at least two times will win the game. The following are the rules of the game.

**rock vs. scissors -> rock wins**

**paper vs. scissors -> scissors wins**

**paper vs. rock -> paper wins**



**Task:-**

You have to write a C program that will:

* Allows the user to play this game three times with a computer.
* Log the scores of the computer and the player.
* Display the name of the winner at the end

**Note**: You have to display the name of the player during the game. Take users name as an input from the user.

SOURCE CODE

// C program for the above approach

#include <math.h>

#include <stdio.h>

#include <stdlib.h>

#include <time.h>

// Function to implement the game

int game(char you, char computer)

{

// If both the user and computer

// has choose the same thing

if (you == computer)

return -1;

// If user's choice is stone and

// computer's choice is paper

if (you == 's' && computer == 'p')

return 0;

// If user's choice is paper and

// computer's choice is stone

else if (you == 'p' && computer == 's') return 1;

// If user's choice is stone and

// computer's choice is scissor

if (you == 's' && computer == 'z')

return 1;

// If user's choice is scissor and

// computer's choice is stone

else if (you == 'z' && computer == 's')

return 0;

// If user's choice is paper and

// computer's choice is scissor

if (you == 'p' && computer == 'z')

return 0;

// If user's choice is scissor and

// computer's choice is paper

else if (you == 'z' && computer == 'p')

return 1;

}

// Driver Code

int main()

{

// Stores the random number

int n;

char you, computer, result;

// Chooses the random number

// every time

srand(time(NULL));

// Make the random number less

// than 100, divided it by 100

n = rand() % 100;

// Using simple probability 100 is

// roughly divided among stone,

// paper, and scissor

if (n < 33)

// s is denoting Stone

computer = 's';

else if (n > 33 && n < 66)

// p is denoting Paper

computer = 'p';

// z is denoting Scissor

else

computer = 'z';

printf("\n\n\n\n\t\t\t\tEnter s for STONE, p for PAPER and z for SCISSOR\n\t\t\t\t\t\t\t");

// input from the user

scanf("%c", &you);

// Function Call to play the game

result = game(you, computer);

if (result == -1) {

printf("\n\n\t\t\t\tGame Draw!\n");

}

else if (result == 1) {

printf("\n\n\t\t\t\tWow! You have won the game!\n");

}

else {

printf("\n\n\t\t\t\tOh! You have lost the game!\n");

}

printf("\t\t\t\tYOu choose : %c and Computer choose : %c\n",you, computer);

return 0;

}