B.M.S COLLEGE OF ENGINEERING BENGALURU

Autonomous Institute, Affiliated to VTU

SPC AAT Report on

Rock Paper Scissors Game

Submitted in partial fulfillment of the requirements for AAT

Bachelor of Engineering

in

Computer Science and Engineering

Submitted by:

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B.M.S COLLEGE OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DECLARATION

We, PRINCE AND PRANIT PODDAR students of 1st Semester, B.E, Department of Computer Science and Engineering, BMS College of Engineering, Bangalore, hereby declare that, this AAT Project entitled **" Rock Paper Scissors Game"**has been carried out in Department of CSE, BMS College of Engineering, Bangalore during the academic semester Oct 2024 – Jan 2025. We also declare that to the best of our knowledge and belief, the AAT Project report is not from part of any other report by any other students.

Student Name	Student Signature
1.PRINCE	
2.PRANIT PODDAR	

BMS COLLEGE OF ENGINEERING

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CERTIFICATE

This is to certify that the AAT Project **titled "Rock Paper Scissors Game"**
has been carried out by PRINCE (1WM25CS122-T), PRANIT PODDAR (1BM25CS692-T)
during the academic year 2025-2026.

Signature of the Faculty in charge

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1. INTRODUCTION

The **Rock–Paper–Scissors** game is a simple and popular hand game usually played between two players. In this game, each player chooses one of the three options: **Rock**, **Paper**, or **Scissors**. The rules are simple: Rock beats Scissors, Scissors beats Paper, and Paper beats Rock. The game is often used to demonstrate basic decision-making and logical conditions.

In this project, the Rock–Paper–Scissors game is implemented using the **C programming language**. The program allows the user to select an option, while the computer automatically generates its choice using random numbers. Based on both choices, the program compares the results and declares the winner or a draw.

This project helps in understanding important programming concepts such as **conditional statements**, **random number generation**, **input/output operations**, and **control structures** in C. The game is interactive, easy to use, and demonstrates how simple logic can be applied to create a real-world application using C programming.

2. ALGORITHM

Step 1: Start the program.

Step 2: Display the title of the game.

Step 3: Display the game menu:

a) Rock

b) Paper

c) Scissors

Step 4: Display the rules of the game:

a) Rock beats Scissors
b) Scissors beats Paper
c) Paper beats Rock

Step 5: Ask the user to enter their choice (1 to 3).

Step 6: Generate the computer's choice randomly between 1 and 3.

Step 7: Display the choice selected by the user.

Step 8: Display the choice selected by the computer.

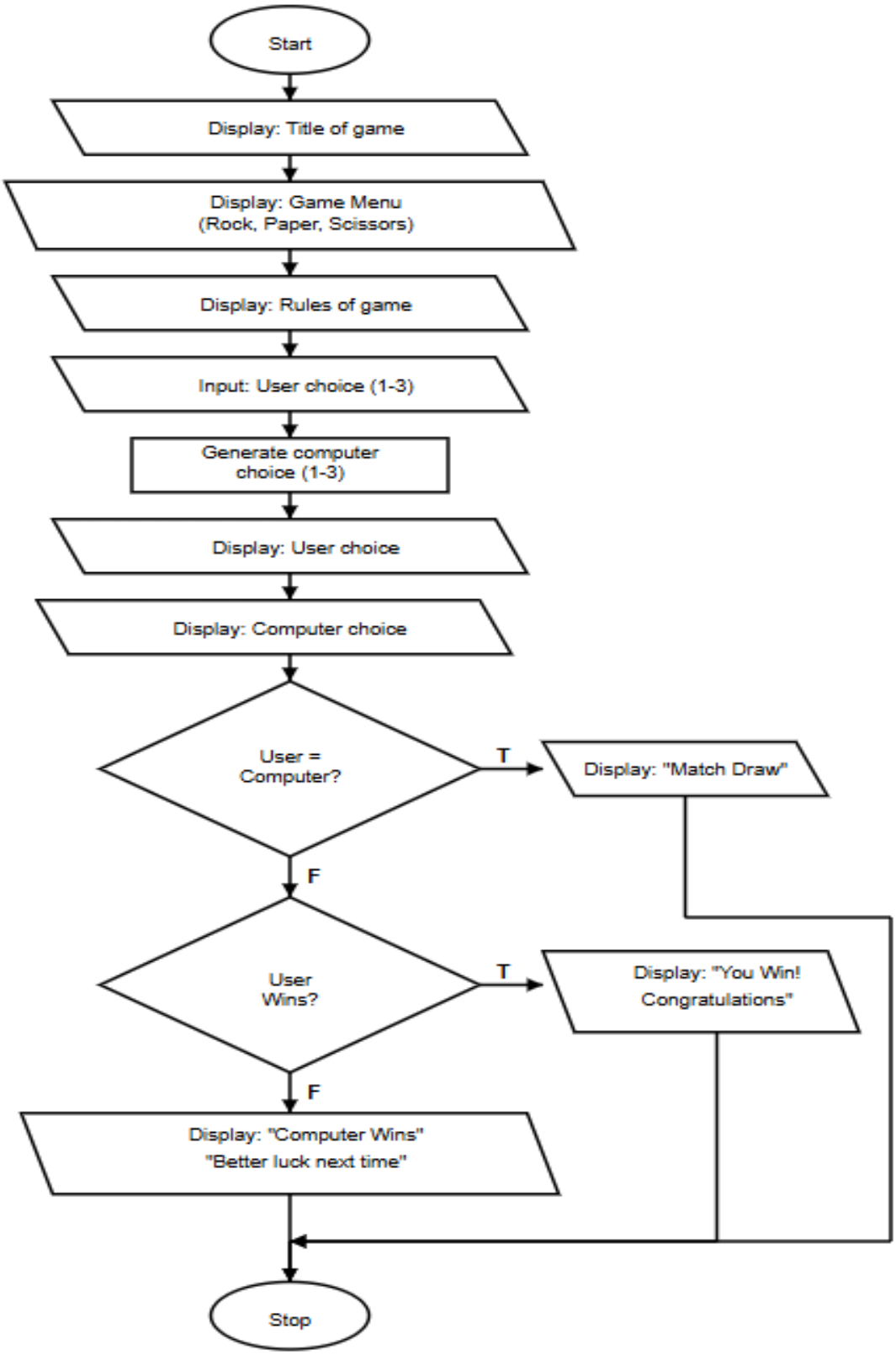
Step 9: Compare the user's choice and the computer's choice as follows:

a) If user choice equals computer choice, display **"Match Draw"**.
b) If
   user = Rock and computer = Scissors **OR**
   user = Scissors and computer = Paper **OR**
   user = Paper and computer = Rock,
   then display **"You Win! Congratulations"**.

c) Otherwise, display **"Computer Wins"** and **"Better luck next time"**.

Step 10: Stop the program.

3. FLOWCHART


Start
Display: Title of game
Display: Game Menu
(Rock, Paper, Scissors)
Display: Rules of game
Input: User choice (1-3)
Generate computer
choice (1-3)
Display: User choice
Display: Computer choice
User =
Computer?
T
Display: "Match Draw"
F
User
Wins?
T
Display: "You Win!
Congratulations"
F
Display: "Computer Wins"
"Better luck next time"
Stop

4. SOURCE CODE

```
#include <stdio.h>

#include <stdlib.h>

#include <time.h>


int main() {

    int user, computer;

     // Display menu

    printf("Rock - Paper - Scissors Game\n");

    printf("1. Rock\n");

    printf("2. Paper\n");

    printf("3. Scissors\n");

    // Display rules

    printf("\nRules:\n");

    printf("Rock beats Scissors\n");

    printf("Scissors beats Paper\n");

    printf("Paper beats Rock\n");


    // Take user input

    printf("\nEnter your choice (1-3): ");

    scanf("%d", &user);

    // Generate computer choice

    srand(time(0));
```

```
computer = (rand() % 3) + 1;


// Display choices
if (user == 1)
   printf("\nYou chose Rock\n");
else if (user == 2)
   printf("\nYou chose Paper\n");
else if (user == 3)
   printf("\nYou chose Scissors\n");
else {
   printf("\nInvalid choice!\n");
   return 0;}


if (computer == 1)
   printf("Computer chose Rock\n");
else if (computer == 2)
   printf("Computer chose Paper\n");
else
   printf("Computer chose Scissors\n");


// Decision logic
if (user == computer) {
   printf("\nResult: Match Draw\n");
```

```
    }
    else if ((user == 1 && computer == 3) ||
            (user == 3 && computer == 2) ||
            (user == 2 && computer == 1)) {
        printf("\nResult: You Win! Congratulations \n");
    }
    else {
        printf("\nResult: Computer Wins!\n");
        printf("Better luck next time \n");
    }
    return 0;
}
```

5. RESULTS

Output 1: User win

```
Rock - Paper - Scissors Game
1. Rock
2. Paper
3. Scissors

Rules:
Rock beats Scissors
Scissors beats Paper
Paper beats Rock

Enter your choice (1-3): 2

You chose Paper
Computer chose Rock

Result: You Win! Congratulations
```

Output 2: Match draw

```
Rock - Paper - Scissors Game
1. Rock
2. Paper
3. Scissors

Rules:
Rock beats Scissors
Scissors beats Paper
Paper beats Rock

Enter your choice (1-3): 1

You chose Rock
Computer chose Rock

Result: Match Draw
```

Output 3: Computer win

```
Rock - Paper - Scissors Game
1. Rock
2. Paper
3. Scissors

Rules:
Rock beats Scissors
Scissors beats Paper
Paper beats Rock

Enter your choice (1-3): 3

You chose Scissors
Computer chose Rock

Result: Computer Wins!
Better luck next time
```

6.REFERENCES

1. Class notes and lecture materials provided by the course instructor.
2. Online C programming documentation and tutorials (for syntax reference).