

## ITC LAB #07 CS (B)

### LAB TASK

1. *Make a two-player Rock-Paper-Scissors game. (Hint: Ask for player plays (using input), compare them, print out a message of congratulations to the winner, and ask if the players want to start a new game)*

**Remember the rules:**

- Rock beats scissors
- Scissors beats paper
- Paper beats rock

```
What's your name?abc
And your name?xyz
abc, do yo want to choose rock, paper or scissors?scissors
xyz, do you want to choose rock, paper or scissors?scissors
It's a tie!
Want to play again? (Y?N)Y
What's your name?abc
And your name?xyzz
abc, do yo want to choose rock, paper or scissors?rock
xyzz, do you want to choose rock, paper or scissors?paper
Paper wins!
Want to play again? (Y?N)N
```

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2. **Write a program in C++ to find the sum of the series [  $x - x^3 + x^5 + \dots$  ]**

Output:

Input the value of x: 2

Input number of terms: 5

The values of series:

2

-8

32

-128

512

The sum of the series upto 5 term is: 410

3. **Write a program in C++ to find the number and sum of all integer between 100 and 200 which are divisible by 9**

#### 4. Bank Updating Policy

A bank in your town updates its customers' accounts at the end of each month. The bank offers two types of accounts: savings and checking. Every customer must maintain a minimum balance. If a customer's balance falls below the minimum balance, there is a service charge of \$10.00 for savings accounts and \$25.00 for checking accounts. If the balance at the end of the month is at least the minimum balance, the account receives interest as follows:

- a. Savings accounts receive 4% interest.
- b. Checking accounts with balances of up to \$5,000 more than the minimum balance receive 3% interest; otherwise, the interest is 5%.

Write a program that reads a customer's account number (`int` type), account type (`char`; s for savings, c for checking), minimum balance that the account should maintain, and current balance. The program should then output the account number, account type, current balance, and an appropriate message. Test your program by running it five times, using the following data:

```
46728 S 1000 2700
87324 C 1500 7689
79873 S 1000 800
89832 C 2000 3000
98322 C 1000 750
```

#### 5. Write a program that prompts the user to input three numbers. Your program should output the numbers in ascending order