1st semester	Fall 2023	BS (IT)	Lab Engineer: Engr. Saba Hussain

TITLE OF PROJECT			
ROCK,PAPER AND SCISSORS GAME			

Group Members			
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EXECUTIVE SUMMARY OF PROJECT PROPOSAL

The rock, paper scissors project aims to create a simple yet engaging console-based game in C++. Players will be prompted to choose rock, paper or scissors, and the computer opponent will randomly generate its choice. The winner will be determined based on the classic game rules. The project assumes two player setup and relies on a basic random number generator seeded by the system time. The implementation prioritize simplicity, making it suitable for beginner learning C++.

PROJECT PURPOSE, SCOPE AND OBJECTIVES

PURPOSE:

The purpose of the Rock, PAPER AND Scissors Project is to create an interactive console based Game that simulate the popular Rock, paper scissors game between a user and computer. This project aims to provide an engaging an entertaining experience by implementing fundamental programming concept.

SCOPE:

The program does not handle more than 2 players. The game does not include additional rules beyond the standard game. People of all age group can play this game but it is basically designed for kids.

OBJECTIVES:

The primary objective is to create a functional and user friendly game where user can engaged in multiple round of the game against an opponent i.e. Computer. The basic purpose is to provide a compiling, intuitive and entertaining game environment that showcases the application of programming logic I game development while delivering and engaging user experience.

BACKGROUND:

We came across this idea of rock, paper scissors game through internet. we choose to do this Project due to its simplicity and less complexity, and it also targets our basic concept of C++ that we have studied earlier in our programming class.

DEPARTMENT OF COMPUTER SCIENCE (BS IT PROGRAM)
COMPUTER PROGRAMMING LAB
PROJECT PROPOSAL FORM

PROJECT DESCRIPTION

PROJECT OVERVIEW :

The rock paper scissor gam is a simple two player game where each player simultaneously choses one of three option: Rock, Paper or Scissors. The winner is determined based on the rules:

. Rock cruses Scissor

. Scissors cuts paper

. paper covers rock

IMPLMENTATION STEPS :

User input: First we ask each player to input their choice. Then we validate the user input to ensure it's one of the valid choices.

Game logic: Compare the choices made by the each player to determine the winner based on game rules. Then implement conditional statements to check the different possibilities and decide the winner.

Display results: Display the choices made by both players. Then announce the winner or if it's a tie.

TESTING:

Test the gamer with various inputs to ensure correct behavior. Then verify that the scores are updated accurately. At last check for any bugs or unexpected behavior.

CONCEPTS:

The main concepts that are used in this game project are listed below:

➤ The main libraries used in this game are iostream, cstdlib and ctime.

➤ We have used functions in this project.

➤ The basic concepts that we imply in this game are string, if-else condition, loops, rand and srand etc.

➤ rand ( ) is used to generate a random number for the computer's choice.

➤ switch statements are used to display choices and determine the winner based on the game rules.

TEAM PROFILE

Esha Ashfaq, Faiza Altaf and Hadiqa Mehmood all are responsible for making of project proposal.

Esha Ashfaq, Hadiqa Mehmood and Faiza Altaf will handle the coding part of the project.

Designing, presentation and documentation will also be handled by three of us.

ASSUMPTIONS AND CONSTRAINTS

ASSUMPTIONS:

➤ The game is played between two players.

➤ Each player select one of three options.

➤ The winner is determined by specific rules.

➤ The program assumes valid input from user.

CONSTRAINTS:
- ➢ The program can only entertain two players.
- ➢ The game does not include additional rules or variations beyond the standard game.
- ➢ The random number generator is based on the system time, which may have limitations in terms of true randomness.
- ➢ The implementation does not include graphical or advance user interface; it relies on the console for input and output.

PROJECT DELIVERABLES NOT CHANGEABLE

Deliverables include
- ● Software Project Proposal.
- ● Project progress
- ● Project report
- ● Team member's work, as per their contribution, you should have to be honest with your future.

For Teacher Use Only

REMARKS

		Signature		Date	
Course Teacher Name		**Signature**		**Date**	
Lab Engineer Name		**Signature**		**Date**	