

Rock Paper Scissors

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What is Rock Paper Scissors?

Rock paper scissors : is a hand game originating from China, usually played between two people, in which each player simultaneously forms one of three shapes with an outstretched hand. These shapes are "rock" (a closed fist), "paper" (a flat hand), and "scissors" (a fist with the index finger and middle finger extended, forming a V). "Scissors" is identical to the two-fingered V sign (also indicating "victory" or "peace") except that it is pointed horizontally instead of being held upright in the air.

How does it work?

The players may count aloud to three, or speak the name of the game (e.g. "Rock! Paper! Scissors!"), either raising one hand in a fist and swinging it down with each syllable or holding it behind their back. They then "throw" or "shoot" by extending it towards their opponent. Variations include a version where players throw immediately on the third count (thus throwing on the count of "Scissors!"), or a version where they shake their hands three times before "throwing".

History and origin?

The name Rochambeau, sometimes spelled Roshambo or ro-sham-bo and used mainly in the Western United States, is a reference to Count Rochambeau, who, according to a widespread legend, played the game during the American Revolutionary War. This legend is clearly untrue as all evidence points to the game first becoming known in the United States during the 1930s. It is unclear why this name became associated with the game, with hypotheses ranging from a slight phonetic similarity with the Japanese name *jan-ken-pon* to the presence of a statue of Rochambeau in a neighborhood of Washington, D.C

Rules of Rock Paper Scissors?

The winner of the game is decided as per the below rules:

- **Rock vs Paper** -> **Paper wins.**
- **Rock vs Scissor** -> **Rock wins.**
- **Paper vs Scissor** -> **Scissor wins.**
- **Same vs same** -> **Draw**

About the source code of Rock Paper Scissors

Rock paper scissors is written in C language

Interface of Rock Paper Scissors

After **Rock paper scissors** has opened the user will see a menu like this:

[illegible]

User can press the corresponding number to go to that menu.

1. Play

This is the main part where you can play **Rock paper scissors**.

2. Exit

To exit **Rock paper scissors**.

Functions used in the codes are:

- `int rock_paper_scissors();`
- `void game();`
- `void load();`

Int rock_paper_scissors();

This function is the main function of the **Rock paper scissor** game.

In this game **score** counts the score of the full game. If user wins then 1 number added to score and if not it remains 0 or the same score .

Then the interference of the game is printed in this function.

```
You can play 5 times
```

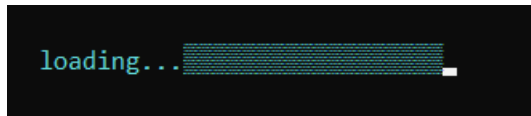
```

$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$
$                                     $
$   Select any of them -             $
$                                     $
$   1.  PLAY GAME                     $
$                                     $
$   2.  EXIT                           $
$                                     $
$                                     $
$                                     $
$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$$
```

And according to the instructions if user press those number , user can go to that menu. As the other to functions **void game();** and **void load();** is called in this function. If user selects 1 then user can play the game if user selected 2 then exits from the game.

void load();

This function is to make a loading graphics.



Void game();

- `srand(time(NULL))` is used to seed generate random numbers with time.
- `player_throw` Is used to store the player given numbers
- `ai_throw` Is used to store the ai given numbers
- `bool draw` It will check the game is draw or not

The game is played 3 times in a row and from that score the winner is selected.

The game is played by this rule

- **Rock vs Paper -> Paper wins.**
- **Rock vs Scissor -> Rock wins.**
- **Paper vs Scissor -> Scissor wins.**
- **Same vs same -> Draw**

And as per this rule the score is added.

As the game is loaded this interference comes

```
CENACE
Select your throw
1) ROCK
2) PAPER
3) SCISSORS
SELECTION: _
```

From this menu, the user can select his/her choice to give his/her throw. Then, the thrown character is stored into **ch_player_throw**, as a character. Then it is type-casted to int type and stored into **player_throw**.

If the user does not give any of 1, 2 or 3 then a sound is produced by **Beep(450, 250);**

The function **Beep(450, 250)** executes a sound. By default, the developer creates sounds with frequencies of 450 Hz and 250 ms respectively.

- **ai_throw = (rand() % 3)**

This will give me random numbers from 0 to infinity. So to get 1 2 3 ,It will mod that integer with 3 and it will give me 0,1,2 and to get 1,2,3 there is a plus 1 at the end.

In this section, the program will ask the user to write down his/her throw. And then what is given by the ai will be printed on the screen.

To create a successful game, there is a lot of if else conditions in it. The program will check the conditions according to the game rule and print if the user wins or loses or draws the game and prints the score.

```
Select your throw
1) ROCK
2) PAPER
3) SCISSORS
SELECTION: 2
AI GIVES SCISSORS.

SCISSORS beats PAPER. YOU LOSE.

YOUR SCORE IS :0
```



https://github.com/alvi00/Rock_Paper_Scissors_game_in_C