

```
from fpdf import FPDF
```

```
# Title and content for the Rock-Paper-Scissors project
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```
title = "ROCK-PAPER-SCISSORS GAME - PYTHON PROJECT"
```

```
content = ""
```

```
OBJECTIVE:
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Build a Rock-Paper-Scissors game using Python with user input, random computer choice, and winner determination logic.

```
FEATURES:
```

- Prompt the user to choose rock, paper, or scissors.
- Generate a random choice (rock, paper, or scissors) for the computer.
- Determine the winner based on the rules:
Rock beats scissors, scissors beat paper, and paper beats rock.
- Display both the user's and computer's choices.
- Display the result: win, lose, or tie.
- Optional: Keep track of user and computer scores across multiple rounds.
- Ask the user if they want to play again.
- Design a user-friendly interface with clear instructions and feedback.

```
SAMPLE PYTHON CODE:
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```
import random
```

```
def get_user_choice():
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```
    choice = input("Enter rock, paper, or scissors: ").lower()
```

```
    while choice not in ["rock", "paper", "scissors"]:
```

```
        choice = input("Invalid choice. Please enter rock, paper, or scissors: ").lower()
```

```
    return choice
```

```
def get_computer_choice():
```

```
    return random.choice(["rock", "paper", "scissors"])
```

```
def determine_winner(user, computer):
```

```
    if user == computer:
```

```
        return "It's a tie!"
```

```
    elif (user == "rock" and computer == "scissors") or \
```

```
        (user == "scissors" and computer == "paper") or \
```

```
        (user == "paper" and computer == "rock"):
```

```
        return "You win!"
```

```
    else:
```

```
        return "Computer wins!"
```

```

def play_game():
    user_score = 0
    computer_score = 0
    while True:
        user = get_user_choice()
        computer = get_computer_choice()
        print(f"You chose: {user}")
        print(f"Computer chose: {computer}")
        result = determine_winner(user, computer)
        print(result)
        if "You win" in result:
            user_score += 1
        elif "Computer wins" in result:
            computer_score += 1
        print(f"Score -> You: {user_score} | Computer: {computer_score}")
        play_again = input("Do you want to play again? (yes/no): ").lower()
        if play_again != "yes":
            break

```

```

if __name__ == "__main__":
    play_game()

```

```

# Create PDF
pdf = FPDF()
pdf.add_page()
pdf.set_font("Arial", "B", 14)
pdf.multi_cell(0, 10, title)
pdf.set_font("Courier", "", 10)
pdf.multi_cell(0, 6, content)

```

```

# Save PDF
pdf_path = "/mnt/data/Rock_Paper_Scissors_Project.pdf"
pdf.output(pdf_path)

```

ROCK-PAPER-SCISSORS GAME – PYTHON PROJECT

OBJECTIVE:

Build a Rock-Paper-Scissors game using Python with user input, random computer choice, and winner determination logic.

FEATURES:

- Prompt the user to choose rock, paper, or scissors.
 - Generate a random choice (rock, paper, or scissors) for the computer.
 - Determine the winner based on the rules:
 - Rock beats scissors
 - Scissors beat paper
 - Paper beats rock
 - Display both the user's and computer's choices.
 - Display the result: win, lose, or tie.
 - **Optional:** Keep track of user and computer scores across multiple rounds.
 - Ask the user if they want to play again.
 - Provide clear instructions and feedback.
-

SAMPLE PYTHON CODE:

```
python
CopyEdit
import random

def get_user_choice():
    choice = input("Enter rock, paper, or scissors: ").lower()
    while choice not in ["rock", "paper", "scissors"]:
        choice = input("Invalid choice. Please enter rock, paper, or
scissors: ").lower()
    return choice
```

```

def get_computer_choice():
    return random.choice(["rock", "paper", "scissors"])

def determine_winner(user, computer):
    if user == computer:
        return "It's a tie!"
    elif (user == "rock" and computer == "scissors") or \
        (user == "scissors" and computer == "paper") or \
        (user == "paper" and computer == "rock"):
        return "You win!"
    else:
        return "Computer wins!"

def play_game():
    user_score = 0
    computer_score = 0
    while True:
        user = get_user_choice()
        computer = get_computer_choice()
        print(f"You chose: {user}")
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        result = determine_winner(user, computer)
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        if "You win" in result:
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        print(f"Score -> You: {user_score} | Computer:
{computer_score}")
        play_again = input("Do you want to play again? (yes/no):
").lower()
        if play_again != "yes":
            break

if __name__ == "__main__":
    play_game()

```