

PROFESSIONAL TRAINING REPORT
AT
SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY

Submitted in partial fulfillment of the requirement for the award of
Bachelor of Engineering Degree in

Information Technology

By

PRAKASH.S

(REG NO:38120061)



DEPARTMENT OF INFORMATION TECHNOLOGY
SCHOOL OF COMPUTING

SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)

Accredited with Grade "A" by NAAC

JEPPIAAR NAGAR , RAJIVI GANDHI SALAI, CHENNAI-600119.

JANUARY 2021

DECLARATION

I PRAKASH.SI (Reg. No. 38120061) hereby declare that the Project Report entitled “GUESS THE NUMBER & STONE,PAPER,SCISSORS” done by me under the guidance of Ms SIVASANGARI M.E (Ph.D), is submitted in partial fulfillment of the requirements for the award of Bachelor of Technology degree in Information Technology

DATE:

PLACE:

SIGNATURE

CANDIDATE

ACKNOWLEDGE

I am pleased to acknowledge my sincere thanks to Board of Management Of SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY for their kind encouragement in doing this project and for completing it successfully.

I am grateful to them. I convey my thanks to **Dr. T . SASIKALA M.E., Ph.D** , Dean, School of Computing , **Dr .SUBHASHINI M.E., Ph.D.** , Head of the Department of Information and Technology for providing me necessary support and details at the right time during the progressive reviews.

I would like to express my sincere and deep sense of gratitude to my Project Guide **Dr.A.SIVASANGARI M.E., Ph.D.,** for his valuable guidance, suggestions and constant encouragement paved way for the successful completion of my project work.

I wish to express my thanks to all Teaching and Non-teaching staff members of the Department of Information Technology who were helpful in many ways for the completion of the project.

Abstract

Rock, paper & scissors:

Once the while loop starts, the computer will patiently wait for you to make a play. As soon as you take your turn, your status changes from False to True because any value assigned to the variable player makes player True. We use the input() function to pass the new value to the variable player. Your input will determine which statement is triggered below.

Using nested if/elif/else statements, we check every possible outcome of the game and return a message stating the winner, a tie, or an error.

We use else at the end to catch anything that isn't "Rock", "Paper" or "Scissors". Finally we reset the player value to False to restart the while loop.

Guess the number:

Based on the user's guess computer will give various hints if the number is high or low. When the user guess matches the number computer will print the answer along with the number of attempts

To generate a random number we will use a Python module named random to use this module in our program, we first need to import it.

Next, we will use the random module to generate a number between 1 to 10 and store it in a [variable](#) named number .Now we will prompt the user to enter his name and store it to a variable named

In the next step, we will create a variable named number_of_guesses and assign 0 to it. Later we will increase this value on each iteration of the while loop.

Finally, before constructing the while loop, we will print a string which includes the player name.

In the first line, we are defining the controlling expression of the while loop. Our game will give user 5 attempts to guess the number, hence less than 5 because we have already assigned the number_of_guesses variable to 0.

If the player couldn't guess the number at the end we will print the number along with a mess.

TABLE OF CONTENTS

CHAPTER NO	TITLE	PAGE NO
1.	ABSTRACT	
	1.1 INTRODUCTION	1
	1.2 FEATURE OF PYTHON	2
	1.3 TYPE OF MACHINE LANGUAGE	3
2.	AIM AND SCOPE	5
3.	SOURCE CODE	7
4.	RESULT AND DISCUSSION	9
5.	CONCLUSION	11
6.	REFERENCE	13

CHAPTER 1

INTRODUCTION

Python is a widely used general-purpose, high level programming language. It was initially designed by Guido van Rossum in 1991 and developed by Python Software Foundation. It was mainly developed for emphasis on code readability, and its syntax allows programmers to express concepts in fewer lines of code .Python is a programming language that lets you work quickly and integrate systems more efficiently

1.1 FEATURE OF PYTHON:

Python is a dynamic, high level, free open source and interpreted programming language. It supports object-oriented programming as well as procedural oriented programming. In Python, we don't need to declare the type of variable because it is a dynamic typed language.

1.Easy to code:

Python is high level programming language .Python is very easy to learn language as compared to other language like c, c#, java script, java etc. It is very easy to code in python language and anybody can learn python basic in few hours or days .It is also developer-friendly language.

2.Free and Open Source:

Python language is freely available at official website and you can download it from the given download link below click on the Download python keyword. Download Python Since, it is open-source, this means that source code is also available to the public. So you can download it as, use it as well as share it.

3.Object-OrientedLanguage:

One of the key features of python is Object-Oriented programming. Python supports object oriented language and concepts of classes, objects encapsulation etc.

4.GUI Programming Support:

Graphical Users interfaces can be made using a module such as PyQt5, PyQt4, wx Pythonor Tk in python.PyQt5 is the most popular option for creating graphical apps with Python

. 5. High-Level Language:

Python is a high-level language. When we write programs in python, we do not need to remember the system architecture, nor do we need to manage the memory.

6. Python is a Extensible language.

we can write our some python code into c or c++ language and also we can compile that code in c/c++ language.

7. PYTHON IS A PORTABLE LANGUAGE:

Python language is also a portable language. for example, if we have python code for windows and if we want to run this code on other platform such as Linux, Unix and Mac then we do not need to change it, we can run this code on any platform.

8. PYTHON IS A INTEGRATED LANGUAGE:

Python is also an Integrated language because we can easily integrated python with other language like c, c++ etc.

9. Interpreted Language:

Python is an Interpreted Language. because python code is executed line by line at a time. like other language c, c++, java etc there is no need to compile python code this makes it easier to debug our code. The source code of python is converted into an immediate form called bytecode.

10. Large Standard Library:

Python has a large standard library which provides rich set of module and functions so you do not have to write your own code for every single thing. There are many libraries present in python for such as regular expressions, unittesting, web browsers etc.

11. Dynamically Typed Language:

Python is dynamically-typed language. That means the type (for example- int, double, long etc) for a variable is decided at run time not in advance. Because of this feature we don't need to specify the type of variable

CHAPTER 2

AIM AND SCOPE

AIM:

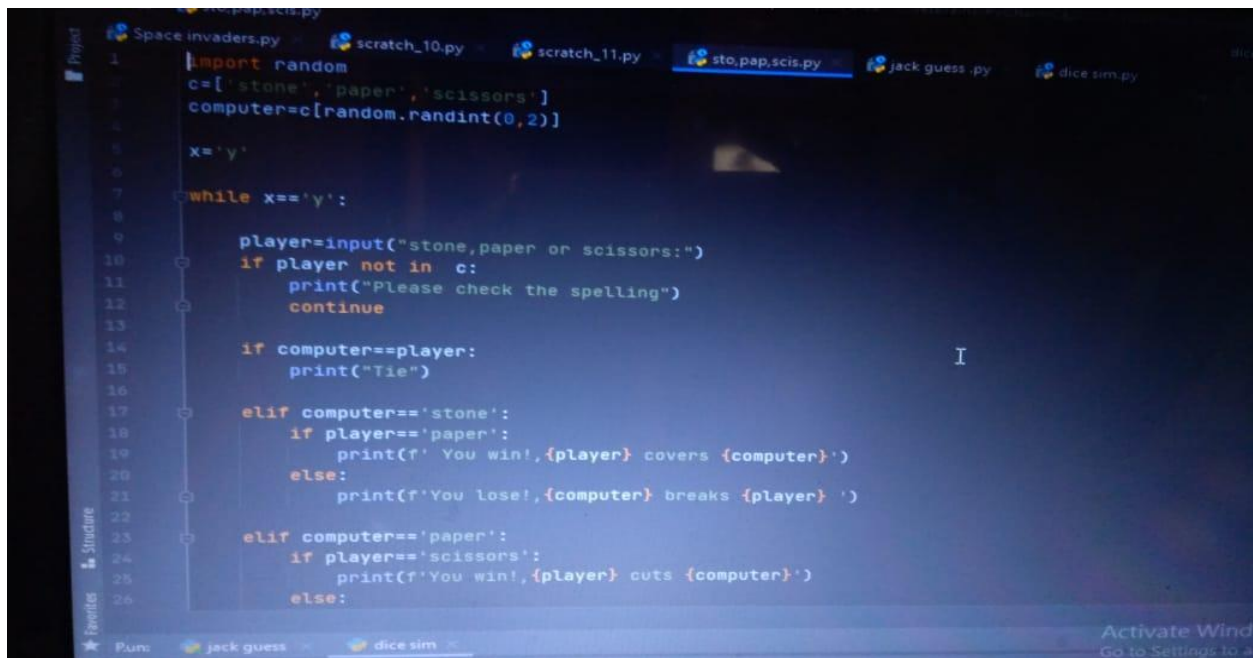
The main aim of the project is just for fun and develop the skill in language using Deep learning techniques.

SCOPE:

The main scope this project is develop the language skills and create a new game using coding. We also have the fun with machine .

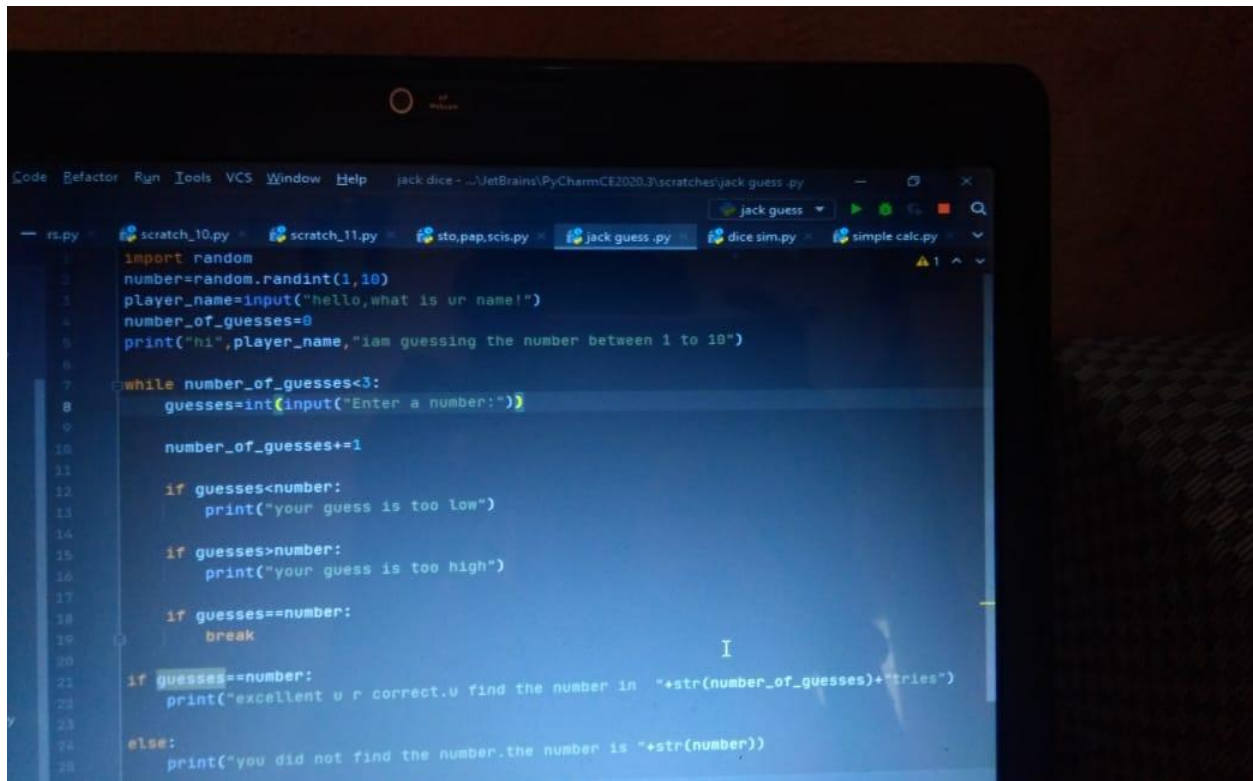
SOURCE CODE:

STONE, PAPER & SCISSORS:

A screenshot of a Python IDE with a dark theme. The file explorer on the left shows a project named 'Project' with several files: 'Space invaders.py', 'scratch_10.py', 'scratch_11.py', 'sto.pap.scis.py' (which is the active file), 'jack.guess.py', and 'dice.sim.py'. The code editor displays the following Python code for a Stone, Paper, and Scissors game:

```
1 import random
2 c=['stone','paper','scissors']
3 computer=c[random.randint(0,2)]
4
5 x='y'
6
7 while x=='y':
8
9     player=input("stone,paper or scissors:")
10    if player not in c:
11        print("Please check the spelling")
12        continue
13
14    if computer==player:
15        print("Tie")
16
17    elif computer=='stone':
18        if player=='paper':
19            print(f' You win!,{player} covers {computer}')
20        else:
21            print(f'You lose!,{computer} breaks {player} ')
22
23    elif computer=='paper':
24        if player=='scissors':
25            print(f'You win!,{player} cuts {computer}')
26        else:
```

GUESS THE NUMBER:



The image shows a screenshot of a PyCharm IDE window. The title bar indicates the file path is `...\\etBrains\\PyCharmCE2020.3\\scratches\\jack guess .py`. The menu bar includes `Code`, `Refactor`, `Run`, `Tools`, `VCS`, `Window`, and `Help`. The toolbar shows icons for running, debugging, and other IDE functions. The editor displays a Python script for a number guessing game. The script imports the `random` module, generates a random number between 1 and 10, prompts the user for their name, and then enters a loop where the user can guess the number up to 3 times. Feedback is provided for low, high, and correct guesses. If the user fails to guess correctly, the program reveals the number.

```
1 import random
2 number=random.randint(1,10)
3 player_name=input("hello,what is ur name!")
4 number_of_guesses=0
5 print("hi",player_name,"iam guessing the number between 1 to 10")
6
7 while number_of_guesses<3:
8     guesses=int(input("Enter a number:"))
9
10     number_of_guesses+=1
11
12     if guesses<number:
13         print("your guess is too low")
14
15     if guesses>number:
16         print("your guess is too high")
17
18     if guesses==number:
19         break
20
21 if guesses==number:
22     print("excellent u r correct.u find the number in "+str(number_of_guesses)+"tries")
23
24 else:
25     print("you did not find the number.the number is "+str(number))
```

CHAPTER 3

RESULT AND DISCUSSION

DISSCUSSION:

GUESS THE NUMBER:

- Build a Number guessing game, in which the **user selects a range.**
- Let's say User selected a range, i.e., from **A** to **B**, where **A** and **B** belong to Integer.
- Some **random integer will be selected by the system** and the user has to

ROCK,PAPER,SCISSORS:

- guess that integer in the **minimum number of guesses**

The object of the rock-paper-scissor python project is to build a game for a single player that plays with a computer, anywhere, and anytime. This project is base on the rules that:

- rock blunts scissors so rock wins
- scissors cut the paper so scissors win
- paper cover rock so paper wins

This project is build using tkinter, random modules, and the basic concept of python.

In this python project, players have to choose any one from rock, paper, and scissors. Then click on the play button will show the result of the game.

CONCLUSION

This project taught me a lot about programming .i learned how to set a goal for what I wanted my program to look like and do and I went and did it. I found that trial and error in programming is basically the only way to finalize a project to be sure it work100% correctly . this project was challenging and fun for me and I felt I learned a lot for my first programming class.

REFERENCE

- . [1] Eli Ben-Sasson, Alessandro Chiesa, Daniel Genkin, Eran Tromer, and Madars Virza. Snarks for c: Verifying program executions succinctly and in zero knowledge. Cryptology ePrint Archive, Report 2013/507, 2013. <http://eprint.iacr.org/>.
- [2] Yuval Ishai, Rafail Ostrovsky, and Vassilis Zikas. Secure multi-party computation with identifiable abort. Cryptology ePrint Archive, Report 2015/325, 2015. <http://eprint.iacr.org/>.
- [3] David Mazieres. The stellar consensus protocol: A federated model for internet-level consensus. 2015.
- [4] Satoshi Nakamoto. Bitcoin: A peer-to-peer electronic cash system,? <http://bitcoin.org/bitcoin.pdf>.
- [5] Bryan Parno, Jon Howell, Craig Gentry, and Mariana Raykova. Pinocchio: Nearly practical verifiable computation. In Proceedings of the 2013 IEEE Symposium on Security and Privacy, SP '13, pages 238–252, Washington, DC, USA, 2013. IEEE Computer Society.
- [6] David Shwartz, Noah Youngs, and Arthur Britto. The ripple protocol consensus algorithm. 2014.
- [7] Thofmann. Rock paper scissors protocol secure. <https://github.com/thofmann/rockpaper-scissors-protocol-secure>, 2015.