# Python Revision

1. **What is Python?**  
   Explain what Python is and describe some of its use cases.

**Answer:**

Python is a general purpose programming language that is used to various tasks.

It has a list of features:

* It is easy to understand because it is in simple language
* It is an open source code
* It is can run in other os without modification
* It supports gui
* It can collab with other programming languages like c , c++
* It is high level language
* It is code feasibility

1. **List Operations:** Given the list **numbers = [1, 2, 3, 4, 5]**, how would you add the number **6** to the end of the list?

Answer:

To add the number 6 to the end of the list we should use append

Syntax:

List\_name.append(elrment)

So,

number.append(6)

this statement will add 6 to the end of the list.

**5. Conditional Statements:** Write a simple Python program that prints "Even" if the variable **num** is an even number, and "Odd" if the variable **num** is an odd number

Answer:

num=int(input(“enter number”))

if num%2==0:

print(“even”)

else:

print(“odd”)

2. **Data Types:** What are the basic data types available in Python? Provide examples for each

**Answer:**

The data types available in python are:

* Int data type
* string data type
* float data type
* Boolean data type
* Character data type

4. **String Manipulation:** How can you convert the string **"PYTHON"** to lowercase using a Python method?

Answer:

To convert the string “PYTHON” to lower case

We show use the function lowercase()

**6.**

**Loops:** How can you loop over and print each item in the list **[10, 20, 30, 40, 50]** using a **for** loop?

List=[10,20,30,40,50]

For I in list:

Print(i)

10. **Error Handling:** How would you handle exceptions in Python? Write Python code that opens a file and uses a try-except block to catch and print an IOError exception if the file doesn't exist.

Answer:

Error handling is a function that we use whern we already know wat error will come. It helps us in running the code and not crashing it because of the error

And it will execute the next part of the code.

9. **List Comprehension:** Use list comprehension to create a list of squares for all even numbers between 1 and 10.

List = [1,2,3,4,5,6,7,8,9,10]

For i in list:

If i%2==0:

Print(i\*\*2)

1.

a = [‘1’,2,’hello’,true]

# Create a new list that is a reversed list

rev = a[::-1]

print(rev)

2.