MLP ASSIGNMENT - 1

1. What is Python and why is it called an interpreted language?

- Python is a general purpose high level interpreted programming language .
- Python uses interpreter which executes the code line by line.

2. What are the key features of Python that make it popular for beginners and professionals?

Python has several features which made python popular and beginner friendly programming language.Features like,

i. It is a **Platform independent**
ii. Easy syntax compare to c/c++, java which makes beginner to understand python easily.
iii. It has a large community supports and also many libraries are available for every operation from application development to Machine Learning it has a different libraries.
iv. It is a opensource .

3. What is the difference between Python 2 and Python 3?

- In python 2 print was a statement and in python 3 they converted it into function which takes a input enclosed in double or single quotes.
- In python 2 '/' division is a floor division and in python 3 they come up with a new operator that is '//' also called as floor division.

4. What are Python's applications in real-world projects?

- Python supports Web Development, App Development and also in Machine Learning and AI Development.
- Python mostly used in Automation and Scripting .

5. What is PEP 8 and why is it important in Python programming?

PEP stands for python enhancement proposal 8. It provides a set of conventions and recommendations for formatting, naming structuring python code to improve its readability and consistency.

6. Who developed Python and in which year was it released?

Python is developed by Guido van Rossam , and First released on February 20, 1991.

7. What do you mean by "dynamically typed" in Python?

Python is a dynamically typed programming language means we don't need to mention data types of a variable to use it we can directly use and we can change the data type of a variable in run time. That is why its called dynamically typed.

8. What is the difference between a compiler and an interpreter, and which does Python use?

Interpreter: Which converts high level language to low level language by executing code line by line.

Compiler	Interpreter
Which converts high level language to low level language or machine level language by executing entire code at once.	Which converts high level language to low level language by executing code line by line.
Fast execution	Slow execution
It will scans entire code and if any errors present it will show at the end	It will scans code line by line if any error occurs in that line it shows error and stops scanning.
More Efficient	Less Efficient