



Andhra Pradesh State Skill Development Corporation



INTERNET OF THINGS (IoT)

INTRODUCTION TO THE PYTHON



Python Introduction:

Python is a multi-paradigm programming language. It means Python can use different approaches to solve a problem. One of the paradigms is procedural or functional programming. It structures the code like a recipe – a set of steps in the form of functions and code blocks.

Another approach to solving the problem is by creating classes and objects. This is known as object-oriented programming. An object is a collection of data (variables) and methods that act on those data. And classes are a blueprint for each object.

The important thing to understand in object-oriented programming is that objects are at the center of the paradigm – they not only represent the data but also the structure of the program. You can choose the paradigm that best suits the problem at hand, mix different paradigms in one program, and/or switch from one paradigm to another as your program evolves.

Why Python

Compared to many languages, Python is easy to learn and to use. Its functions can be carried out with simpler commands and less text than most competing languages. And this might explain why it's soaring in popularity, with developers, coding students and tech companies.

It's not an exaggeration to say that Python plays a small part of all of our lives. It's one of those invisible forces with a presence in our mobile devices, web searches and gaming (and beyond). So it was an obvious choice for inclusion in our full stack coding bootcamp. Here's an introduction to the language itself, and some of the everyday but profound, things that Python is used for.

Python Comments :

- ☐ Comments can be used to explain Python code.
- ☐ Comments can be used to make the code more readable.
- ☐ Comments can be used to prevent execution when testing code.

Creating a Comment :

Comments starts with a #, and Python will ignore them:

Example :

```
#This is a comment  
print("Hello, World!")
```

Hello, World!

Comments can be placed at the end of a line, and Python will ignore the rest of the line:



Example :

```
print("Hello, World!") #This is a comment
Hello, World!
```

Comments does not have to be text to explain the code, it can also be used to prevent Python from executing code:

Example :

```
#print("Hello, World!")
print("Cheers, Mate!")
```

```
Cheers, Mate!
```

Multi Line Comments :

- ☐ Python does not really have a syntax for multi line comments.
- ☐ To add a multiline comment you could insert a `#` for each line:

Example :

```
#This is a comment
#written in
#more than just one line
print("Hello, World!")
```

```
Hello, World!
```

Or, not quite as intended, you can use a multiline string.

Since Python will ignore string literals that are not assigned to a variable, you can add a multiline string (triple quotes) in your code, and place your comment inside it:

Example :

```
"""
This is a comment
written in
more than just one line
"""
print("Hello, World!")
```

```
Hello, World!
```