**PYTHON COURSE**

1. **Introduction to Python**

* **What is Python programming Language?**
* **How to run python code**
* **First python program**

1. **Python Installation**

* **Installing Python**
* **IDE installation**

1. **Python Basics Data Structure**

* **Data types**
* **Math functions**
* **Operator**
* **String**
* **Boolean**
* **List – List comprehension**
* **Tuple**
* **Dictionary**
* **Sets**

1. **Python Logical operation**

* **For loop**
* **While loop**
* **Range function**
* **Useful Operators**

1. **Demo Project**
2. **Methods and Functions**

* **Introduction to Functions**
* **Basic function**
* **Lambda Functions**
* **Return**
* **\*args, \*\*kwargs**

1. **Demo Project –**
2. **Python Error Handling**

* **Try Except Catch block**

1. **Modules and Packages in Python**

* **PIP install package**
* **How to import Packages in Python**
* **\_\_name\_\_**

1. **Debugging in Python**
2. **Decorator and higher order function**
3. **File I/O , Regular expression**

* **How to different files**
* **Working with Pandas**
* **Regular expression special symbols**

1. **OOP in Python**

* **How to create your own Class in python**
* **Working with Constructor**
* **Adding Methods to class**
* **Inheritance**

1. **GIT Hub**

* **Creating your GIT Hub account and pushing the code to it.**

1. **GUI Application building – 3 Days**

* **Building Snake Game**

1. **Web Scrapping with Python**

* **Web Scrapping and APIs**
* **What is an API**
* **Beautiful Soups basics**

1. **Web Development (Long Course)**

* **How websites work**
* **Setting up Flask**
* **Building first web server**

1. **Machine Learning and AI**

* **What is AI**
* **How Machine learning work**
* **History of Data**
* **Classification vs Regression**
* **Kaggle project house price prediction**