MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

DEPARTMENT OF INFORMATION TECHNOLOGY

Report of Technical Workshop on

Python Programming

Title: Internship on Python Programming

Date: Held during 20.05.2019 to 31.05.2019

Objective: Aiming to provide an intense training and internship on Python Programming at undergraduate level, a 10 day workshop on Python Programming held during 20.05.2019 to 30.05.2019. where this activity includes familiarization with the basic knowledge on python installation, object oriented concepts, modules in python and working with django framework along with database set up models.

Lead Consultant: Scube Future Technologies and Webcognize softech private limited, Hyderabad

Total Participants:22

Venue: Malla Reddy Engineering College

Discussion and Training Activities

Training Modules:

Monday, 20 May

- > Introduction to Python and Environment set up
- > Features
- > Python Installation

Tuesday,21 May

- ➤ Basic Syntax
- ➤ Variables and Data Types
- > Operators
- > Conditional Statements

Wednesday,22 May

> Sample programs using control statements and Functions.

Thursday,23 May

- ➤ The following practical concepts were covered:
- Lists, Tuples, Set, Dictionary in Python

Friday,24 May

- Concepts covered:
- > Lambda function, word sorting etc.

Saturday,25 May

- > Filter
- ➤ Map
- > reduce Functions

Tuesday,28 May

- ➤ OOP concepts
- working with Files

Wednesday,29 May

> Databases in python

Thurday,30 May

- > Python Tkinter for developing GUI
- ➤ Installation of SQL Server Management studio for database connectivity

Friday, 31 May 2019

> Project on Hospital management

On the last day of the workshop, project is carried out on Hospital Management for the participants to asses their learning capabilities in the subject

Feedback: The feedback has been analyzed and salient features are presented. Overall, the training program was successfully in close cooperation with Department of Information Technology.

Day wise Schedule

Python Schedule

Day	Topic to be covered	Assignments/Hands On
Day1	Introduction to python, Installation, using python IDLE, Features of Python.	Basic Syntax of Python, Fundamental Data Types, Type conversions and Variables.
Day2	Basic syntax of Python ,Operators,Control Statements (if, if-else, if -elif-else),pass, continue ,break, assert	Operators and Input/output statements ,range(),Control Statements(while,for),Strings and characters and Slicing
Day3	String pattern matching Examples, Tuples, Sets, Keyword, random , math, sys Modules	Byte ,Bytearray, Lists,Dictionaries and Example programs,Functions, None, return
Day4	Function generators and Decorators	Lambda function , filter(),map() and reduce()
Day5	File Handling in Python. Regular Expression	Programs on files. Information retrieval from files and HTML file using Res.
Day6	OOP, Declaring classes and creating objects	Inheritance and polymorphism
Day7	Abstract classes and interfaces, Multi threading	Exception Handling, os modules and command line arguments.
Day8	Introducion to SQL,Pythons Database Connectivity(SQLite/Oracle)	Accessing (SQLite/Oracle) Database through Python.
Day9	Designing Menu system, Calculator Design,Developing a GUI with PyQT	Data Science with Python,Qt Designer usng Common widgets,
Day10	Numpy Module ,Data Visualization using Matplotlib,Pyplot.	Operations on Data Frames, Statistics Module(Mean ,Mode,varience,Meadian)





