## LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING



(AUTONOMOUS)

### Accredited by NAAC & NBA (CSE, IT, ECE, EEE & ME)

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L.B.Reddy Nagar, Mylavaram-521230, Krishna Dist, Andhra Pradesh, India

# CSI-LBRCE STUDENT BRANCH Report on "one week training on problem solving using python"

**Type of Event:** Workshop

**Date/ Duration:** 06-01-2020 to 11-01-2020 / 6 Days

**Resource Person(s)**: Amphisoft solutions trainers.

Name of the Coordinator(s): Dr. S. Naganjaneyulu Professor and CSI- LBRCE Student branch

Counselor, IT Dept., LBRCE.

Mr. Ch. Samba Siva Rao, Assistant Professor, IT, LBRCE Mr. P. Vamsi Naidu, Assistant Professor, CSE, LBRCE

Target Audience: III B.Tech Students of CSE, IT, ECE, EIE, MECH and II year MCA

**Total no of Participants:** 111 (CSE- 75, IT-36)

**Objective of the event:** 

The LBRCE CSI Student Branch organized a one week training on problem solving using python for students of CSE, IT, ECE,EIE,MECH and II year MCA Branches during 06-01-2020 to 11-01-2020. The program was inaugurated by Dr. K.Apparao, principal in the presence of Dr.D.Veeraiah, HOD Department of CSE, Dr.B.Srinivasarao, HOD, Department of Information Technology, Dr.S.Naganjaneyulu, CSI LBRCE student branch counsellor and trainers from Amphisoft solutions and internal faculty. This training will gives overview of different challenges faced and opportunities offered by the corporate companies and how to crack the coding contests.

**Schedule of the event:** Day wise schedule was given below and each and every day the concepts related quiz, practice problems, analyzing the problem and followed by an assessment.

#### **Day-1: Variables and Operators, Decision Constructs, Looping Constructs**

- A variable can store a value.
- Expressions are sequences of operators, operands, and punctuators that specify a computation.
- Decision Constructs, which perform different computations or actions depending on whether a programmer-specified Boolean condition evaluates to true or false
- Looping Constructs, where a program may require that a group of statements is executed repeatedly until some logical condition has been satisfied.

In this session, Student will explore about Variables, Operators, Decision Constructs, Looping Constructs by solving the amazing quizzes.

#### **Day-2: Lists, Tuples, Set, Dictionary**

• In Python programming, a list is created by placing all the elements inside a square bracket [], separated by commas.

- It can have any number of items and they may be of different types (integer, float, string, etc.). In Python programming, a tuple is similar to a list.
- The difference between the two is that we cannot change the elements of a tuple once it is assigned whereas, in a list, elements can be changed.
- The python dictionary is an unordered collection of items. A dictionary has a key: value pair as an element.

#### **Day-3: Strings, Regular Expressions**

- In this session, students will learn strings and regular expressions in detail like,
- How to declare strings, regular expressions?
- How to work with strings and regular expressions?
- How to use predefined string handling functions and methods?

#### **Day-4:Functions and Recursion**

- Functions are a convenient way to divide your code into useful blocks, allowing us to order our code, make it more readable, reuse it and save some time. Functions are a key way to define interfaces so programmers can share their code.
- In this session, we will explore How Functions and Recursion, PyTes are defined. How they are accessed from various places within a Python Program. The manner in which information is passed to functions. Different types of the function argument. Lambda functions. Global vs Local variables.

#### Day-5: Modules and Packages, Date and Time Functions, File Handling

- The date time module supplies classes for manipulating dates and times in both simple and complex ways. While the date and time arithmetic is supported, the focus of the implementation is on efficient attribute extraction for output formatting .and manipulation.
- Python files I/O functions handle data on a secondary storage device, such as a hard disk. Python can handle files as stream-oriented data (Text) files and system oriented data (Binary) files.
- The Objective of this session is to explore the concept of date and time using practical examples and to explore in detail on file handling in Python.

#### Day-6: Linked List, Stack, Queue

- A linked list is a data Structure which consists if a group of nodes that forms a sequence
- A Stack is a data structure in which addition of a new element or deletion of existing element always takes place at the same end. This end is known as the top of the stack
- The queue is an abstract data type or a linear data structure, just like Stack data structure, in which the first element is inserted from one end called the REAR.
- In this session, we will explore the List Using Linked List, Stack, Queue and basic operations of these structures.

#### Feedback/ suggestions

- 1. Successfully learnt more about basics of python .Solving different problems based on logics gave a path to practice programming better.
- 2. Practiced python programming .Learned to solve real world problems and find different logics according to given conditions.
- 3. Learnt basics of python and experienced solving real time problems, increases the thinking capabilities.

4. Experienced wide variety of problems showing different functionalities in different situations and also learnt how to analyse test cases of our own. It would better if classes related to topics were given.

#### **Photographs:**



Dr. B.Srinivasarao, HOD, Department of IT addressing students



Dr. D. Veeraiah, HOD, Department of CSE addressing students

## **During the training**







