

BCACC04-PYTHON PROGRAMMING

COURSE OUTCOMES: Upon successful completion of this course, the student will be able to: 1. Define and demonstrate the use of built-in data structures “lists” and “dictionary”. 2. Design and implement a program to solve a real world problem. 3. Design and implement GUI application and how to handle exceptions and files. 4. Make database connectivity in python programming language.

Introduction

- ✓ History
- ✓ Features
- ✓ Setting up path
- ✓ Working with Python
- ✓ Basic Syntax
- ✓ Variable and Data Types
- ✓ Operator

Conditional Statements

- ✓ If
- ✓ If- else
- ✓ Nested if-else

Looping

- ✓ For
- ✓ While
- ✓ Nested loops

Control Statements

- ✓ Break
- ✓ Continue
- ✓ Pass

String Manipulation

- ✓ Accessing Strings
- ✓ Basic Operations
- ✓ String slices
- ✓ Function and Methods

Lists

- ✓ Introduction
- ✓ Accessing list
- ✓ Operations
- ✓ Working with lists
- ✓ Function and Methods

Tuple

- ✓ Introduction
- ✓ Accessing tuples
- ✓ Operations
- ✓ Working
- ✓ Functions and Methods

Dictionaries

- ✓ Introduction
- ✓ Accessing values in dictionaries
- ✓ Working with dictionaries
- ✓ Properties
- ✓ Functions

Functions

- ✓ Defining a function

- ✓ Calling a function
- ✓ Types of functions
- ✓ Function Arguments
- ✓ Anonymous functions
- ✓ Global and local variables

Modules

- ✓ Importing module
- ✓ Math module
- ✓ Random module
- ✓ Packages
- ✓ Composition

Input-Output

- ✓ Printing on screen
- ✓ Reading data from keyboard
- ✓ Opening and closing file
- ✓ Reading and writing files
- ✓ Functions

Exception Handling

- ✓ Exception
- ✓ Exception Handling
- ✓ Except clause
- ✓ Try ? finally clause
- ✓ User Defined Exceptions

Advance Python

OOPs concept

- ✓ Class and object
- ✓ Attributes
- ✓ Inheritance
- ✓ Overloading
- ✓ Overriding
- ✓ Data hiding

Regular expressions

- ✓ Match function
- ✓ Search function
- ✓ Matching VS Searching
- ✓ Modifiers
- ✓ Patterns

CGI

- ✓ Introduction
- ✓ Architecture
- ✓ CGI environment variable
- ✓ GET and POST methods
- ✓ Cookies
- ✓ File upload

Database

- ✓ Introduction
- ✓ Connections
- ✓ Executing queries

- ✓ Transactions
- ✓ Handling error

Networking

- ✓ Socket
- ✓ Socket Module
- ✓ Methods
- ✓ Client and server
- ✓ Internet modules

Multithreading

- ✓ Thread
- ✓ Starting a thread
- ✓ Threading module
- ✓ Synchronizing threads
- ✓ Multithreaded Priority Queue

GUI Programming

- ✓ Introduction
- ✓ Tkinter programming
- ✓ Tkinter widgets

Sending email