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|  | Department of Computer Science  CS121 Object Oriented Programming | | | | | |  |
|  |  | Lab # 01  Introduction to Python Programming | | | |  |  |
|  | Objective:  This experiment introduces the students to Python programming language. Python will be used as a programming tool for future labs of the Object Oriented Programming course. | | | | | |  |
|  | **Name of Student:**  **Roll No: Sec.**  **Date of Experiment:** | | | | | |  |
|  | **Marks Obtained/Remarks:**  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **Signature:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | | | | | |  |

**Lab 01: Introduction to Python Programming**

# Introduction to Python

Python is a high-level, interpreted, interactive and object-oriented scripting language. Python is designed to be highly readable. It uses English keywords frequently where as other languages use punctuation, and it has fewer syntactical constructions than other languages.

**Python is Interpreted:**

Python is processed at runtime by the interpreter. You do not need to compile your program before executing it.

**Python is Interactive:**

You can actually sit at a Python prompt and interact with the interpreter directly to write your programs.

**Python is Object-Oriented:**

Python supports Object-Oriented style or technique of programming that encapsulates code within objects.

**Python is a Beginner's Language:**

Python is a great language for the beginner-level programmers and supports the development of a wide range of applications from simple text processing to WWW browsers to games.

# Python Program

If you are running new version of Python, then you would need to use print statement with parenthesis as in **print ("Hello, Python!")**. However, in Python version 2.4.x, you do not need the parenthesis. The above line produces the following result:

Hello, Python!

# Quotation in Python

Python accepts single ('), double (") and triple (''' or """) quotes to denote string literals, as long as the same type of quote starts and ends the string. The triple quotes are used to span the string across multiple lines. For example, all the following are legal

word = 'word'

sentence = "This is a sentence."

paragraph = """This is a paragraph. It is

made up of multiple lines and sentences."""

# Comments in Python

A hash sign (#), that is not inside a string literal, begins a comment. All characters after the # and up to the end of the physical line are part of the comment and the Python interpreter ignores them.

# Student Exercise

1. Write a Python program which accepts the radius of a circle from the user and compute the area.

**Code:**

print("Task 1\n")

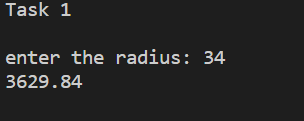
x=int(input("enter the radius: "))

compute =(3.14\*x\*x)

print(compute)

print("\n")

**OUTPUT:**

****

1. Write a Python program which accepts the user's first and last name and print them in reverse order with a space between them.

**Code:**

print("Task 2 \n")

first=input("Enter your first name: ")

last=input("Enter your last name: ")

print(last,"",first)

print("\n")

**OUTPUT:**

Text

Description automatically generated

1. Write a Python program to find whether a given number (accept from the user) is even or odd, print out an appropriate message to the user.

**Code:**

print("Task 3\n")

y=int(input("enter the number: "))

even =y%2

if even ==0:

print("It is even number!")

else:

print("It is odd number!")

print("\n")

**OUTPUT:**

**Graphical user interface, text

Description automatically generated**

1. Write a Python program to calculate the sum of the digits in an integer

**Code:**

print("Task 4\n")

number=int(input("Enter a number:"))

sumofinteger=0

while(number>0):

digits=number%10

sumofinteger=sumofinteger+digits

number=number//10

print("The sum of the digits in an integer:",sumofinteger)

**OUTPUT:**

Text

Description automatically generated