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Faculty of Technology and Engineering

## U & P U. Patel Department of Computer Engineering

Date: 15 / 03 / 2022

## Practical List

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| --- | --- | --- | --- | --- | --- |
| Academic Year | : | 2021-22 | Semester | : | 4 |
| Course code | : | CE259 | Course name | : | Programming in Python |

**Note: Practical List is for Students. We need to cover concept require to implement respective practical**

# * AIM:

Consider an example of declaring the examination result. Design three classes: Student, Exam, and Result. The Student class has data members such as those representing rollNumber, Name, etc. Create the class Exam by inheriting Student class. The Exam class adds fields representing the marks scored in six subjects.

Derive Result from the Exam class, and it has its own fields such as total\_marks. Write an interactive program to model this relationship.

# * CODE:

# Consider an example of declaring the examination result. Design three classes: Student, Exam,

# and Result.

# The Student class has data members such as those representing rollNumber, Name, etc.

# Create the class Exam by inheriting Student class. class Student:

def init (self, rollno, name, age): self.rollno = rollno

self.name = name self.age = age

# The Exam class adds fields representing the marks scored in three subjects.

class Exam(Student):

marks = {

"Physics": 0,

"Chemistry": 0,

"Maths": 0,

}

def init (self, rollno, name, age, marks): super(). init (rollno, name, age) self.marks = marks

# Derive Result from the Exam class, and it has its own fields such as total\_marks.

class Result(Exam):

def init (self, rollno, name, age, marks): super(). init (rollno, name, age, marks) self.total\_marks = sum(self.marks.values())

def display(self):

print("Roll Number:", self.rollno) print("Name:", self.name) print("Age:", self.age) print("Marks:", self.marks) print("Total Marks:", self.total\_marks)

# Write an interactive program to model this relationship. if name == " main ":

rollno = int(input("Enter Roll Number: ")) name = input("Enter Name: ")

age = int(input("Enter Age: ")) marks = {

"Physics": int(input("Enter Physics Marks: ")), "Chemistry": int(input("Enter Chemistry Marks: ")), "Maths": int(input("Enter Maths Marks: ")),

}

result = Result(rollno, name, age, marks) result.display()

***Software used:*** VS CODE

# * CONCLUSION:

How the inheritance, constructor and function definition works in python.