**#Author name: Milan Sutariya**

**#Date: 20/10/2024**

**#Session 5 and 6**

#1

course\_enrollments = {

    "1001": ["CS101", "MATH101", "PHY101"],

    "1002": ["CS202", "MATH102", "CHEM101"],

    "1003": ["BIO101", "ENGL101", "HIST101"],

    "1004": ["SOC101", "PSY101", "ECON101"]

}

for student\_id, courses in course\_enrollments.items():

    print(f"Student ID: {student\_id}")

    print("Enrolled courses:", ", ".join(courses))

    print()

#2

departments = {

    "Computer Science": [

        ("CS101", "Introduction to Computer Science"),

        ("CS202", "Data Structures and Algorithms")

    ],

    "Mathematics": [

        ("MATH101", "Calculus I"),

        ("MATH102", "Calculus II")

    ],

    "Physics": [

        ("PHY101", "General Physics I"),

        ("PHY102", "General Physics II")

    ],

    "Chemistry": [

        ("CHEM101", "General Chemistry I"),

        ("CHEM102", "General Chemistry II")

    ],

    "Biology": [

        ("BIO101", "Biology I"),

        ("BIO102", "Biology II")

    ]

}

for department, courses in departments.items():

    print("Department: ", department)

    for course in courses:

        course\_id, course\_name = course

        print(f"Course ID: {course\_id}, Course Name: {course\_name}")

    print()

#3

lecturer\_assignments = {

    "Dr. Sarah Collins": ["CS101", "CS202"],

    "Prof. Mark Evans": ["MATH101", "MATH102"],

    "Dr. Robert Thompson": ["PHY101", "PHY102"],

    "Prof. Jennifer Parker": ["CHEM101", "BIO101"],

    "Dr. Emily Davis": ["BIO102", "ENGL101"],

    "Prof. Michael Scott": ["SOC101", "PSY101"],

    "Dr. James Smith": ["ECON101", "HIST101"]

}

for lecturer, courses in lecturer\_assignments.items():

    print("Lecturer: ", lecturer)

    print("Courses taught:", ", ".join(courses))

    print()

**#OUTPUT:**

Student ID: 1001

Enrolled courses: CS101, MATH101, PHY101

Student ID: 1002

Enrolled courses: CS202, MATH102, CHEM101

Student ID: 1003

Enrolled courses: BIO101, ENGL101, HIST101

Student ID: 1004

Enrolled courses: SOC101, PSY101, ECON101

Department: Computer Science

Course ID: CS101, Course Name: Introduction to Computer Science

Course ID: CS202, Course Name: Data Structures and Algorithms

Department: Mathematics

Course ID: MATH101, Course Name: Calculus I

Course ID: MATH102, Course Name: Calculus II

Department: Physics

Course ID: PHY101, Course Name: General Physics I

Course ID: PHY102, Course Name: General Physics II

Department: Chemistry

Course ID: CHEM101, Course Name: General Chemistry I

Course ID: CHEM102, Course Name: General Chemistry II

Department: Biology

Course ID: BIO101, Course Name: Biology I

Course ID: BIO102, Course Name: Biology II

Lecturer: Dr. Sarah Collins

Courses taught: CS101, CS202

Lecturer: Prof. Mark Evans

Courses taught: MATH101, MATH102

Lecturer: Dr. Robert Thompson

Courses taught: PHY101, PHY102

Lecturer: Prof. Jennifer Parker

Courses taught: CHEM101, BIO101

Lecturer: Dr. Emily Davis

Courses taught: BIO102, ENGL101

Lecturer: Prof. Michael Scott

Courses taught: SOC101, PSY101

Lecturer: Dr. James Smith

Courses taught: ECON101, HIST101