Coding Test-2: Python (List, Dictionary, String and Conditional)

1. Print the largest value from three given integers.
   Input:
   10
   20
   5
   Output:
   20

2. Print the minimum value from three given integers.
   Input:
   10
   20
   5
   Output:
   5

3. Write a python program to calculate the grade of an exam. The exam mark will be given as input. Follow the UAP rule for grading.
   Input:
   74
   Output:
   A-

4. Write a python program to calculate the letter grade of an H.S.C exam. The exam mark will be given as input. Follow the standard rule for grading.
   Input:
   82
   Output:
   A+

5. Write a python code to determine odd or even.
   Input:
   5
   Output:
   Odd

6. Write a python code to determine negative or non-negative.
   Negative numbers: -1, -2, -3, …….
   Non-negative numbers: 0, 1, 2, 3, ……
   Input:
   1
   Output:
   Non-negative

7. Write a program to check Leap year.

   Following is pseudo code:

   ```
   if year is divisible by 400 then is_leap_year
   else if year is divisible by 100 then not_leap_year
   else if year is divisible by 4 then is_leap_year
   else not_leap_year
   ```

8. Given a list of 5 elements, swap two values of specified index.

   Example:
   List = [10, 5, 100, 4, 6]
   Index 1 = 2
   Index 2 = 4
   Output:
   List = [10, 5, 6, 4, 100]

   Input:
   Element 1: 10
   Element 2: 5
   Element 3: 100
   Element 4: 4
   Element 5: 6
   Index 1: 2
   Index 2: 4

   Output:
   [10, 5, 6, 4, 100]

9. Given a string of length 12, divide the string into 4 parts of length 3. Then swap the first part with the last part. Output the final string.

Example:
Given String: “ABCDEFGHIJKL”
4 parts of the string: “ABC”, “DEF”, “GHI”, “JKL”
Swap the first and last part: “JKL”, “DEF”, “GHI”, “ABC”
Output: ‘JKLDEFGHIABC’

10. Suppose you are going to start a Django Project with a group of 5 members. Now, you need to store the information (Name, ID, CGPA, Email_Address, and Contact_no) about the group members in some variables. Choose the appropriate data type to store these information.

11. Suppose you are going to start a Django Project and you have selected “Library Management System” as your project. Now, at some point you need to store information about books. Currently, you have 5 books. The information you are interested in are Name, Author’s name, Publication Date, Printing date and Price. Choose the appropriate data type to store these information.

12. Choose appropriate variables to store the following information.

Activities Table

Student	Activity1	Cost1	Activity2	Cost2
John Smith	Tennis	$36	Swimming	$17
Jane Bloggs	Squash	$40	Swimming	$17
John Smith	Tennis	$36		
Mark Antony	Swimming	$15	Golf	$47

13. Choose variables of appropriate data type to store the following information.

Employees

EmpID	LastName	FirstName	HireDate
77920	Jackson	Stephen	11-29-1997
77921	Reynolds	Sandy	01-04-1993
77922	Armstrong	Stephen	09-16-1989
77823	Jackson	Linda	10-09-1996

14. Choose variables of appropriate data type to store the information of the following table in a way that if someone inputs the ID, it will show all the information of that student.

ID	First Name	Last Name	Email	Year of Birth
1	Peter	Lee	plee@university.edu	1992
2	Jonathan	Edwards	jedwards@university.edu	1994
3	Marilyn	Johnson	mjohnson@university.edu	1993
6	Joe	Kim	jkim@university.edu	1992
12	Haley	Martinez	hmartinez@university.edu	1993
14	John	Mfume	jmfume@university.edu	1991
15	David	Letty	dletty@university.edu	1995

Table: Students

Input:
12
Output:
ID: 12, First Name: Haley, Last Name: Martinez, Email: hmartinez@univerity.edu, Year of Birth 1993

15. Choose variables of appropriate data type to store the information of the following table in a way that if someone inputs the EmployeeID, it will show all the information of that Employee.

EmployeeID	Ename	DeptID	Salary	Dname	Dlocation
1001	John	2	4000	IT	New Delhi
1002	Anna	1	3500	HR	Mumbai
1003	James	1	2500	HR	Mumbai
1004	David	2	5000	IT	New Delhi
1005	Mark	2	3000	IT	New Delhi
1006	Steve	3	4500	Finance	Mumbai
1007	Alice	3	3500	Finance	Mumbai

Input:
1002
Output:
Ename: Anna, DeptID: 1, Salary: 3500, Dname: HR, Dlocation: Mumbai