**RADIANT ACADEMY J.H.S.**

**Sector 115, Noida**

**Computer Science (083)**

**Practical File**

**Submitted By:**

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**Class: XII Science**

**Roll No:**

**Submitted To:**

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**Computer Science**

**Radiant Academy J.H.S. Noida**

**Class-XII**

**Subject: Computer Science (083)**

**Python and MySQL**

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**Python**

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| --- | --- | --- | --- |
| **Sr.No.** | **Program Name** | **Date** | **Signature** |
| **1** | **Write a program calculates the volume and surface area of a sphere.** |  |  |
| **2** | **Complete the following function that adds up all the positive values in a list of integer. def sum\_positive\_integers(a):** |  |  |
| **3** | **Write a function in Python to display the elements of list thrice if it is a number and display the element terminated with ‘#’ if it is not a number.**  **i.e if the content of list is as follows :**  **List = [‘41’ , ‘DROND’ , ‘GIRIRAJ’ , ‘13’ , ‘ZARA’]**  **The output should be**  **414141**  **DROND#**  **GIRIRAJ#**  **131313**  **ZARA#** |  |  |
| **4.** | **Write a program simulates the rolling of a die. (Using randrange() function of random library.** |  |  |
| **5.** | **Write a program to read a text file line by line and display each word separated by a #** |  |  |
| **6.** | **Write different functions to count the number of**  **(1) words (2) Lines (3) spaces (4) digits in “Introduction.txt” file.** |  |  |
| **7.** | **Write a program to read a text file and display the number of vowels, consonants, uppercase and lowercase letters in the file** |  |  |
| **8.** | **Write a function word\_z\_s() to count the words starting with “Z” or “S”. (applicable for lower case also)** |  |  |
| **9.** | **Write a function display\_me\_my() that will count the no of “me” or “my” words present in text file “story.txt** |  |  |
| **10.** | **Write a program to find all the words in the file “Allwords.txt” that contains vowels and write those words in “vowels.txt” file.** |  |  |
| **11.** | **Write functions to create a binary file named ”stsudent.dat” with Roll\_No and Name i.e. [Roll\_No, Name] and read the Binary file “student.dat” to display data on the screen.** |  |  |
| **12.** | **Write a function to create a binary file with Roll\_No,**  **Name.Search for a given roll no. and display the name , If not found display appropriate message.** |  |  |
| **13.** | **Create a binary file with Roll\_No , Name and Marks. Input a Roll\_Number ad update the marks .** |  |  |
| **14.** | **Write a User defined function to perform read and write operation in a “student.csv”having fields as roll\_no , name , stream and marks.** |  |  |
| **15.** | **Write a program to create a CSV file by entering user-id and password. Read and search the password for given User Id.** |  |  |

**MY-SQL**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Consider the tables given below and answer the questions**  **Table: Employee**   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **No** | **Name** | **Salary** | **Zone** | **Age** | **Grade** | **Dept** | | **1** | **Mukul** | **30000** | **West** | **28** | **A** | **10** | | **2** | **Kritika** | **35000** | **Centre** | **30** | **A** | **10** | | **3** | **Naveen** | **32000** | **West** | **40** | **C** | **20** | | **4** | **Uday** | **38000** | **North** | **38** | **C** | **30** | | **5** | **Nupur** | **32000** | **East** | **26** | **B** | **20** | | **6** | **Moksh** | **37000** | **South** | **28** | **B** | **10** | | **7** | **Shelly** | **36000** | **North** | **26** | **A** | **30** |   **Table : Department**  **Dept DName MinSal MaxSal HOD** | | | | | | |  |  |
|  | **10** | **Sales** | **25000** | **32000** | **1** |  |  |
| **20** | **Finance** | **30000** | **50000** | **5** |
| **30** | **Admin** | **25000** | **40000** | **7** |
| **16.** | **Display the details of all the employees who are getting a salary of more than 35000** | | | | | | |  |  |
| **17.** | **Display the details of all the employees whose salary is between 32000 and 38000. (Using BETWEEN operator)** | | | | | | |  |  |
| **18.** | **Display the details of all the employees in the descending order of their names.** | | | | | | |  |  |
| **19.** | **Increase salary by 5000 of those employees whose grade is ‘A’.** | | | | | | |  |  |
| **20.** | **Display the name of the department and the name of the corresponding HOD for all the departments.** | | | | | | |  |  |
| **21.** | **Display name, dept of employees working in North zone.** | | | | | | |  |  |
|  | **Consider the following table STUDENT of database SCHOOL and do as instructed. Table : Student**   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **NO.** | **Name** | **Stream** | **Stipend** | **Marks** | **Grade** | **Class** | | **101** | **Akanksha** | **Science** | **300** | **250** | **C** | **12A** | | **102** | **Anubhav** | **Science** | **600** | **340** | **A** | **12A** | | **103** | **Saransh** | **Commerce** | **550** | **260** | **B** | **12B** | | **104** | **Babita** | **Humanities** | **600** | **210** | **C** | **12C** | | **105** | **Raj** | **Humanities** | **200** | **350** | **A** | **12C** | | | | | | | |  |  |
| **22.** | **Write a Python-SQL connectivity program to read the data from table STUDENT and display all the records where Grade is ‘C’.** | | | | | | |  |  |
| **23.** | **Write a Python-SQL connectivity program to update the stipend with Rs.240 for all the records where stipend is more than 500 and stream is Science. Program should also display all the records after updation of record in table Student.** | | | | | | |  |  |
| **24.** | **Write a Python-SQL connectivity program to delete the data from table STUDENT where Name is “Babita”.** | | | | | | |  |  |
| **25.** | **Write a Python-SQL connectivity program to insert the following record in table student and then display the inserted records.**   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | **NO.** | **Name** | **Stream** | **Stipend** | **Marks** | **Grade** | **Class** | | **106** | **Raksha** | **Commerce** | **700** | **400** | **A** | **12B** | | | | | | | |  |  |
| **26.** | **Write a Python program to implement stack operations Push and Pop** | | | | | | |  |  |
| **27.** | **Write a program to implement a stack for these book details. [book\_no, book\_name]. Just implement Push and display operation.** | | | | | | |  |  |
| **28.** | **Write a function in Python Pop(Arr) , where Arr is a stack implemented by list of numbers . The function returns the deleted value from the stack.** | | | | | | |  |  |