

Problem statements

1. Decimal to Hexa, Hexa to Decimal conversion

- Validate the input if it's not in decimal format print invalid input, convert to hexadecimal
- Do it vise-versa

Note: don't use in-built functions

2. Maskify user mobile number

Write a method to maskify user mobile number except last 3 digits and print the output

Ex: maskify("9988776655") should print "#####655"

3. OOPS

Define a class called Person with properties like name, age, mobile, set those values by taking input from the user, and print the values by getting the values using class objects.

4. Validate the Password

I have an app for my employees in my company, I need my employees password to be safe, so I want to make a Python App which says if the password is safe or no, the password is given by an input assigned in a variable called password, it should go into the following points: 1) Minimum 8 characters.

- The alphabets must be between [a-z]
- At least one alphabet should be of Upper Case [A-Z]
- At least 1 number or digit between [0-9].
- At least 1 symbol like [_ or @ or \$].

5. ROLE-based database management system

Roles:

- Super admin
- Admin
- Teacher
- Student

Let's say there are n number of colleges and each college will be in different state, city, campus, section

Ex: College Sri Chaitanya

State	City Campus Section
Telangana	Hyderabad KPHB A

Telangana	Hyderabad KPHB B
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Data level access

- I. Super Admin can see the data of all colleges(i'e all students)
- II. Admin can see the data of 1 college(i,e students data of 1 college)
- III. Teacher can see all the student's data of a particular section
- IV. Student can see only his/her data

Student data:

- Id
- Name
- Section
- Subject-wise marks

Write a REST API to manipulate the data over the DB with respect to ROLES

- A. READ data
- B. WRITE data
- C. UPDATE data
- D. DELETE data

Note: API's should throw write/read/update/delete concerns if the user is trying to manipulate the data for which he doesn't have permission.