Practical Assessment -2 : Java & OOP Fundamentals

NOTE: All solutions are part of single project.

Q1.   Create a User-defined "Unchecked Exception with name "IllegalCredentialsException"
        [10 Marks]

Q2.   Write a code to validate user name and password [Use Scanner for Input].

        Validation Logic:

                Username must contain at least 6 and maximum 12 characters

                Username cannot contain a space

                Password must contain at least ONE digit and ONE special character

                Password must be minimum 8 characters long

                Password may contain a space.

        Incase of any of these rules are violated, raise "IllegalCredentialException".   [15 Marks]

Q3.   Create a Class with name "User" and with following properties: [10 Marks]

        username, password, role, active [True/False]

Q4.   Create "UserManager" class with list of following users: [20 Marks]

Username	Password	Role	Active
Ashish	pass@12245	Admin	True
Anish	My$pass123	User	True
Alok	$$xyz$$12345	User	True
Aditi	Opps_forgot_1	Userge :	True

        Add following methods In UserManager class:

                add(User u), find(String name), getAll()

Q5.   Modify the solution of [Q2] to include verifying user credentials [after validating them] using
"UserManager" class.

        i.   After Validating User & Password, find user name in "UserManager"
        ii.   If found, match the password with one stored in "UserManager"
        iii.   If found display message : Login Successful.
        iv.   Display appropriate Error message whenever required.   [20 Marks]