

1.Password Strength Indicator

Write a command line program that simulates checking password strength based on certain rules.

The program should accept the user input interactively and print the password strength. The password strength can be based on the following rules.

1. Atleast 8 characters
2. Contains atleast 2 special chracters
3. Contains atleast 2 numbers
4. Does not start with any number

Each rule can be a different. The total of all rules should be 100 . You can decide how much weightage can be assigned to each rule. The password strength should be printed based on the score of all rules < 50 LOW, 50-75 - AVERAGE 75-90 - GOOD 90+ - VERY GOOD

If the score is less than 75, the program should display the two rules that contributed lowest to the score.

2.File Parsing

A webserver log file contains multiple log entries of various activities. Each log entry is begins with either

INFO, DEBUG or ERROR. Write a program that accepts a log file and writes 3 different log files - one for each type of log entry (i.e. INFO log, DEBUG log and ERROR logs) containing those relevant type of log entries.

For both assignments, code should confirm to best practices in terms of coding standards, error handling, graceful user interactions (User Prompts, error messages etc) and proper startup and shutdown of the programs.

Extra credit for ability to write unit tests.

Code should be checked into Github and the repo link shared.

Code should run and produce expected result. A README file should be added for any instructions to build or execute the programs.

Any candidate submitting code that does not execute correctly will automatically disqualified

You may use Java/Python/PHP/GO (Preferably Python) for assignment submission.

SQL:

Table Name: Employee

Emp_Id	Name	Department	Grade	Salary	Gender
1	Robert	Computer Science	100	100000	M
2	Ram	Information Technology	101	134000	M
3	Alex	Computer Science	200	123456	M
4	Radha	Information Technology	201	23456	F
5	Santhi	Civil	300	234567	F
6	Madhavi	BioTech	301	234567	F

Student:

Student_Id	Class_Teacher_Employee_Id	Subject1	Subject2	Subject3
1	1	P	P	F
2	1	P	F	P
3	2	P	P	P
4	3	F	F	F
5	4	P	P	P
6	5	P	P	F
7	4	P	P	P
8	5	P	P	P
9	4	P	P	P
4	3	F	F	F

Questions:

- Write a query to fetch Employee name whose grade greater than 200.
- Write a query to fetch the department name where only male staff available.
- Write a query to fetch the second highest salaried employer.
- Write a query to fetch the employ details who did not assigned with any students.
- Write a query to fetch the student who passed in all three subjects.
- Write a query to fetch the top employee details where all of his students passed in the subjects.