Assignment # 1

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Section: BM

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Q1. Write down the five examples of different types of external quality attributes and five internal quality attributes of MAJU Portal. Please write two examples of each external and internal quality attributes.

Note: Please read lecture 02 for different types of external and internal quality attributes used in any software development.

External Quality Attributes:

1. Usability:

1.1. A trained user shall be able to see the transcript in an average of 45 seconds, and in a maximum of 90 seconds (1 minute and 30 second), 95 percent of the time.
1.2. The new Freshest who have never used the Portal before shall be able to print the fee challan within 10 minutes of orientation.

2. Security:

2.1. Portal needs to temporary block the user 1 hour, after 5 continue unsuccessful try.
2.2. All the authorize user can access their data and perform the action, according to their given ride.

3. Performance:

3.1. The portal needs to load within 3 seconds at a speed of 2 mb/p internet connection.
3.2. The portal needs to load the attendance sheet in group form (10 students within 3 seconds).

4. Availability:

4.1. The Portal should be 99% available between 8:00 am – 5:00 pm, availability should be 90% between 5:00 pm to 12:00 am.
4.2. For maintenance the portal can be down between 2:00 am to 5:00 am.

5. Robustness:

5.1. The portal needs to handle the exception (invalid input) or error that may create by user mistakenly
5.2. The portal needs to restore registration information, if its down because of user traffic.

Internal Quality Attributes:

6. Reusability:

6.1. The architecture needs to design in such a manner that 50% of view (UI screen) can be reused after changing the backend.

6.2. The code needs to follow **SOLID principle** and module during maintain, don't affect the other modules or feature.

7. Efficiency:

7.1. The portal needs to response the request within 1 minute if user traffic is 10 hit per seconds

7.2. The portal needs to load within 3 seconds at a speed of 2 mb/p internet connection.

8. Portability:

8.1. The portal should run on at least browser 4 (Chrome, Firefox, Brave ,and Tor) easily,

8.2. All the API of the portal can be used on IOS, or android.

9. Verifiability:

9.1. Tester can easily debug the portal and can find the root cost of error.

9.2. Tester can verify outcome and run automate test case on the portal.

10. Scalability

10.1.   The portal needs to handle at least 175 extra users', to handle maximum user traffic.

10.2.   The portal can increase hardware (hard drive), or in case of maximum users or in some events.