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| **ID** | **Requirement** | **Category** | **Requirement's Basic Attributes** | | | **Requirement's Assessment Attributes** |
| **Type** | **Classification** | **Source** | **Priority** |
| **(1)** | Any registered student can take attendance | Student | Functional | Usability | External | High |
| **(2)** | Each student will have a unique ID to help in organization and management | Student | Functional | Usability | External | High |
| **(3)** | Doctor Login  Requiring doctor full name as well as doctor ID | Doctor | Functional | Usability | External | High |
| **(4)** | Add course is a feature available to the doctor to add courses in order to manage and organize the system more efficiently | Doctor | Functional | Usability | External | High |
| **(5)** | Add Faculty is a feature available to the doctor to add courses in order to manage and organize the system more efficiently by wrapping up a group of related courses | Doctor | Functional | Usability | External | High |
| **(6)** | Add university is a feature available to the doctor to add courses in order to manage and organize the system more efficiently if the doctor instruct courses in different universities or different branches | Doctor | Functional | Usability | External | High |
| **(7)** | Print Attendance report due to specified time interval as well as the availability to show each student record separately | Doctor | Functional | Usability | External | High |
| **(8)** | Data recodes update in real-time manner to enable the doctor to check the attendees in lecture time at any moment | System | Functional | CMS | External | High |
| **(9)** | Give green flag to indicate that the system has been recognized the student successfully | System | Functional | CMS | External | High |
| **(10)** | Give red flag to indicate the system is unable to recognize a student | System | Functional | CMS | External | High |
| **(11)** | Send remainder to remember doctor to lecture time and deadlines | System | Functional | Usability | External | High |
| **(12)** | Send warning  Is a mechanism of notifying students when they are near to the limit of allowed number of absences | Doctor | Functional | Usability | External | High |
| **(13)** | Give permissions is a feature which is available to the doctor in order to know the reasons of student absence | Doctor | Functional | Usability | External | High |
| **(14)** | Request permission is a feature which is available to the doctor in order to notify the doctor why he cannot attend a specific lecture | Student | Functional | Usability | External | High |
| **(15)** | The database may get crashed at any certain time due to virus or operating system failure. Therefore, it is required to take the database backup | System | Non-Functional | CMS | External | High |
| **(16)** | The system is available 100% for the user and is used 24 hrs a day and 365 days a year. The system shall be operational 24 hours a day and 7 days a week. | System | Non-Functional | CMS | External | High |
| **(17)** | The system requires a database in order to store persistent data. The database should have backup capabilities. | System | Non-Functional | CMS | External | High |
| **(18)** | Mean Time to Repair (MTTR) - Even if the system fails, the system will be recovered back up within an hour or less. | System | Non-Functional | CMS | External | High |
| **(19)** | The system should accurately provide real time information taking into consideration various concurrency issues. The system shall provide 100% access reliability. | System | Non-Functional | CMS | External | High |
| **(20)** | The Quality of the database is maintained in such a way so that it can be very user friendly to all the users of the database. The database will be MySQL | System | Non-Functional | CMS | External | High |
| **(21)** | Power availability as there is an embedded unit in our system which acts as an interface between the system and student, we must provide stable power source in order to keep it operating well | System | Non-Functional | Usability | External | High |
| **(22)** | Construct a system with enough computing capabilities in order to do image enhancement locally on the microprocessor chip to enhance performance and overall system efficiency | System | Non-Functional | Usability | External | High |
| **(23)** | Any student is able to upload a photo to the dedicated window on the administration website in order to submit the attendance | Student | Functional | Usability | External | High |
| **(24)** | Any student is able to register to our system through a dedicated tab in our website to achieve data and results monitoring and analysis by the student to priories the student tasks to achieve the optimal efforts to provide optimal results | Student | Functional | Usability | External | High |
| **(25)** | Any student can label a show password box to view the password as plain text instead of encrypted style to ensure that the password is correct in its syntax | Student | Functional | Usability | External | High |
| **(26)** | An error message must be shown in the registration form to accomplish data integrity to maintain our database robust if a required field is left empty and a user must fill it to keep our database design or business rules | System | Functional | CMS | Internal | High |
| **(27)** | The data resources cannot be accessed through URL injection the user must be authorized in one of two ways by storing his information by website cookies or by registration | System | Functional | CMS | External | High |
| **(28)** | A cookie software must be provided to ensures and provide data integrity | System | Functional | CMS | Internal | High |
| **(29)** | An error message may be required to be shown if the image clear enough to recognize the person who in the uploaded image | System | Functional | CMS | External | High |
| **(30)** | Any student is able to capture a live personal photo to the dedicated window on the administration website in order to submit the attendance to validate the student attendance mor efficiently | Student | Functional | Usability | External | High |
| **(31)** | Any student is able to stream a live video to the dedicated window on the administration website in order to submit the attendance in order that the uploaded image is not sufficient to recognize the standing person | Student | Functional | Usability | External | High |
| **(32)** | A reset password option must be provided to both student and instructor to provide resources accessibility | Student  Doctor | Functional | Usability | External | High |