# Functional Requirements

This section contains the requirements for the visitor management system. The functional requirements, as collected from the users, have been categorized as follows to support the types of user interactions that the system shall have.

1. **Educational Purpose**: The main purpose of this project is to teach computer science students the basics of developing and deploying a specific software based on basic SDLC.

* FR01: The students shall be able to view the source code for the entire application.
* FR02: The students shall be able to, individually, view and understand the code for all pieces on the UI.
* FR03: The students shall be able to debug the application’s source code.

1. **User (Security Official): Entry/Exit –** The officials on gate mainly check in a user or upon exit do checkout procedure.

* FR04: The software page asks for the following processes to occur as a process tree: Check-In and Check-out from 2 different gates 1 and 2.

***CHECK-IN :***

1. **User: Classify the type -** Based upon the visit the user is classified as new user or an old user. The first page asks about his/her type whether he/she is a new or old user.

* FR05: The first page asks the user to enter his/her type.

1. **User: New User –** After entering the type he/she is presented on the next page.

* FR06: The new user enters his/her credentials in order to set a first-time visit.
* FR07: The facility of cam capture for extra layer of verification is also there.
* FR08: The new user is also required to fill some pre-decided fields like the category and the purpose of meeting.
* FR09: Upon completion of above processes the “review and print” option allows the official to print the visiting pass for the new visitor. The main function here is the assigning of a unique “visitor-ID” which takes into account the previous IDs stored in the database at the backend. The user is provided with a finite validity of the visiting pass, after which it expires and the pass is no longer valid.

1. **User: Old User –** If a person has already an entry in the database, he/she is considered as an old user. The functionalities related to old user are-

* FR10: The old user is searched through their contact no, if multiple users have the same contact number than we have to select the person who we want to check-in.
* FR11: He/she has the provision to change the validity of the pass that is he/she may extend the validity in order to continue the visit in future.
* FR12: He/she has the provision of updating the info.

1. **User: Print Card -** After entering the details of new or old user the next step is to print visitor pass. All the details filled in the form is mentioned on the card.

* FR13: To print the visitors pass the user can choose from paper size A6 and A4. By default the paper size is set A6.
* FR14: By “Save and Print” the visitor pass is printed and also the data about visitor is saved or updated in the database. If the visitor already have a valid card then by unchecking the print checkbox (which is checked by default) “Save Only” option will come, here only the data about the visitor will be updated or saved in the database, it will not print the card.

***CHECK-OUT***

1. **User: Checking-out -** The visitors are checked out when they leave the campus. Here when they checkout the out time and last visit is updated in the database.

* FR15: By using Visitor ID or name or contact no, visitors currently inside the college can be searched and checked out.
* FR16: From an available list of visitors still inside the college, visitors can be selected and checked out.

***SOFTWARE (SELF FUNCTIONALITIES) :***

1. FR17: The software is programmed in a way in the back end by using SQL triggers and event schedulers such that the program generates report of the undergoing happenings in the software which include the credentials, validity related to a visitor ID etc.
2. FR 18: The program similarly generates log files which involve every process related to the software. The log generation additionally plays an important role in cross checking certain aspects which the report generation may fail to do.
3. FR 19: Through Manual report generation data stored in database on the selected day is stored as .csv file.