DESIGN BRIEF
WEBSITE FOR '**Library management system**'.

GOAL:
To build end to end library management application which will help different stakeholders track & manage books..

PROBLEMS:
USER:
1. User doesn't know which books are available in the library..
2. Difficult to track due dates.
3. Requesting for extension of due date involves lot of manual effort.
4. Difficult to track the status of the books that are taken.
5. User feel difficulty to avail a membership.
6. User don't have an idea of penalty on book which is not returned on time.
7. User doesn't have flexibility to request a book that are not present in a library.

BUSINESS:
1. Difficult to track the availability of books .
2. Creating membership took lot of manual effort..
3. Difficult to track who are the membership holders.
4. Difficult to track due dates of issued books.
5. Renewals & cancellation of membership is difficult.
6. The inventory is not managed effectively.
7. Difficult to track if the user is reached the limit or not.

OUTCOMES:
USER:
1. User will know the availability of a book in less than a minute.
2. User will always know about the due dates of books.
3. Requesting for extension of due date can be done within a minute.
4. User can track the status of the books that he has taken.
5. Availing membership process will reduce by 50%.
6. The number of penalties paid by the user will reduce by 60%.
7. User has an option to request for a new book.

BUSINESS:
1. User will be able to track availability of a book within a minute.
2. Membership process will be made online which reduces manual effort.
3. Because of online membership process we can easily track all membership holders..
4. Online process made tracking the due dates easier.
5. Renewals & cancellation of membership process will take a minute.
6. User can manage inventory more effectively.

7. The user will know when a member limit of books is reached with less manual effort.

STAKEHOLDERS:

    Driver   **:** Pradeep Narvaneni.
    Approver   **:** Prasad Kantamneni.
    Contributors **:** Anurag Duddu, Nagalakshmi Yarra, Bala narsimha rao Tanneeru, Mohan   Babburi, Vijaya prabhakar Konduri.
    Informed   **:** Prasad Kantamneni.

TIMELINES:

Day Date	Deliverables	Time	Duration	Man hours
24-1-2016 (Sunday)	Design brief	9:00 am to 1:00 pm	4 hrs	24 hrs
24-1-2016 (Sunday)	Planning	2:00 pm to 4:00 pm	2 hrs	12 hrs
24-1-2016 (Sunday)	Workflows	4:00 pm to 5:00 pm	1 hr	2 hrs
24-1-2016 (Sunday)	Sketches	5:00 pm to 6:00 pm	1 hr	2 hrs
25-1-2016 (Monday)	Flowcharts	9:00 am to 1:00 pm	4 hrs	20 hrs
25-1-2016 (Monday)	Code design	2:00 pm to 6:00 pm	4 hrs	24 hrs
26-1-2016 (Tuesday)	Database design	9:00 am to 11:00 am	2 hrs	12 hrs
26-1-2016 (Tuesday)	Back-end code	11:00 am to 6:00 pm	6 hrs	36 hrs
27-1-2016 (Wednesday)	Front-end code	9:00 am to 1:00 pm	4 hrs	20 hrs
27-1-2016 (Wednesday)	Integration	2:00 pm to 6:00 pm	4 hrs	24 hrs
28-1-2016 (Thursday)	Testing	9:00 am to 4:00 pm	6hrs	32 hrs
28-1-2016 (Thursday)	Bug fixes	4:00 pm to 6:00 pm	2 hrs	12 hrs

29-1-2016 (Friday)	Documentation	9:00 am to 1:00 pm	4 hrs	12 hrs
29-1-2016 (Friday)	Buffer	2:00 pm to 6:00 pm	4 hrs	24 hrs
29-1-2016 (Friday)	**Final submission**	**6:00 pm**		

(Lunch: 12:00 pm to 1:00 pm)   **(Total Duration: 46 hrs)**

ARTIFACTS:
1. **Design brief** (A written document addressing deliverables of the project).
2. **Flowcharts on paper** (A flow indicating the process of all Use cases).
3. **Paper workflows** (A flow of all use cases containing unique and variation screens with Descriptions).
4. **Sketches** (Layouts of all screens).
5. **Flowcharts** (Flowchart is a diagrammatic representation of an algorithm).
6. **Code** (Functionable prototypes).
7. **Documentation** (Operation and use of functions).

SCOPE:
User (Not have a membership):
1. Signing up for membership.
2. Search experience.
User (Have a membership):
1. Search experience.
2. Request for a book, extension of due dates.
3. Requesting for renewal or cancellation of membership.
4. Requesting for new book which is not available in the library.
Librarian:
1. Inventory management.
2. Search experience.
3. Updates , notifications.
4. Verify new membership, book requests.
5. Membership and book renewals.

LESSONS LEARNED: