**Chapter 2 Analysis**

**2.1 Introduction**

* Analysis define any information/realities and data related to assessment/examination to think about the impact of relationship by breaking it into different parts which gives thought for basic decision making and taking care of any related issue.

Analysis is done to assemble date to think about of various data and information realated to the project. Assembling process need certain ability to catch, at that point archive it, work together correspondence with clients and deal with the general necessity. At the time of investigating/ analysing we have to anticipate how data need to be assemble/gather. And aslo the analysis is the procedure of documentaion and identification of requirement related to proposed system of this project. In the analysis phase requirement assembling/gathering is the main aim. And the first step of analysis phase is to analyze and collect various information and date for its feasibility study. And define requirement analysis after that we prepare system modelling like class diagram and use case diagram.

**2.2 Analysis methodology**

* Methodology gives certain rule giving advices on the most skilled method to build up the work.There are various types of methodology they are :- hard system methodology, soft system methodology, and combined system methodology. So I select Soft System Methodology for my project because my project is producing for the necessities of individuals. So I need to concentrate more on individuals' perspectives than specialized. As necessity changes time to time so variability is needed which is given by soft system methodology.

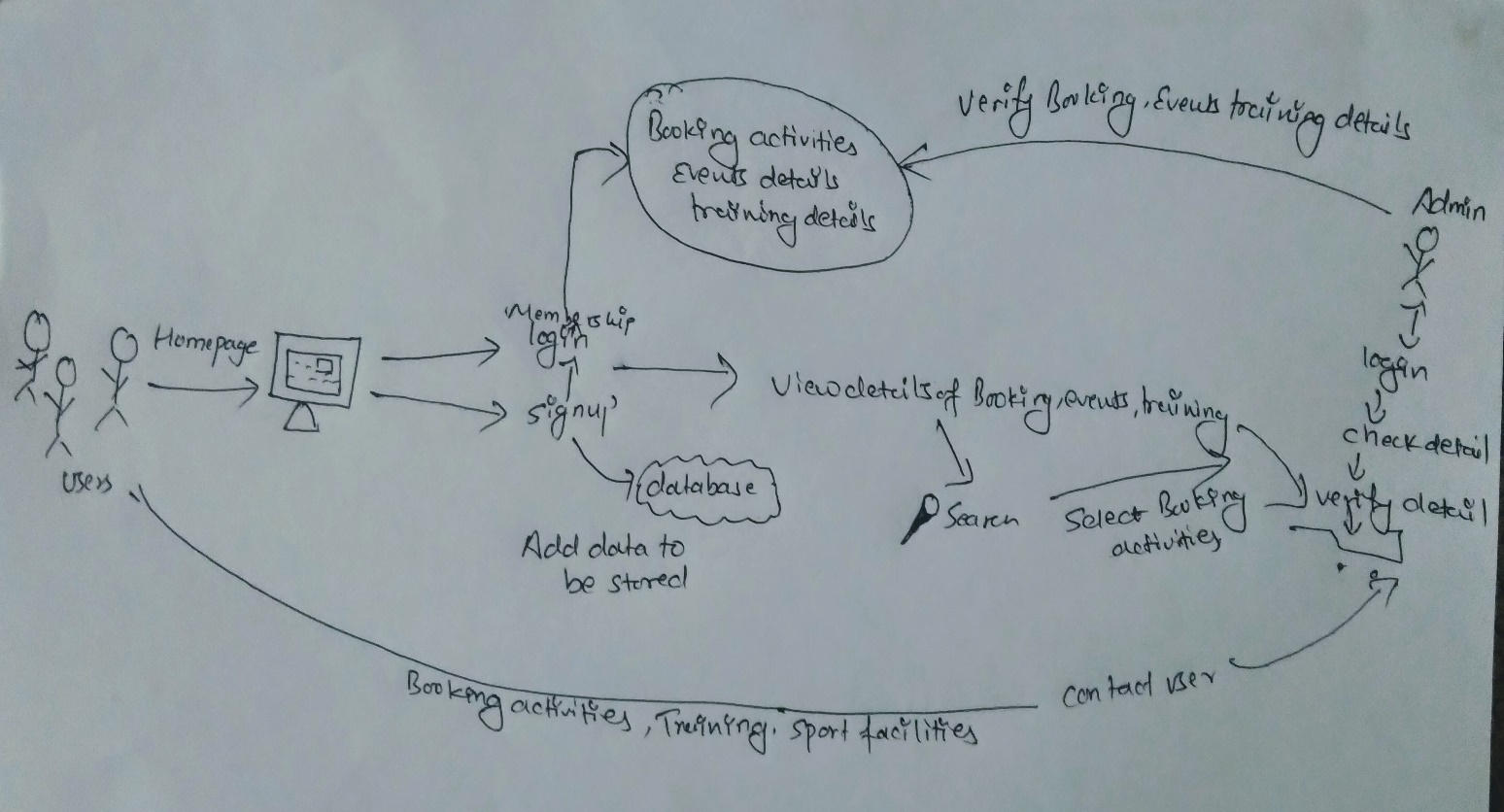
**Advantage :-**

* Improve the understanding as input from client is taken note.
* More individuals cooperation and contribution with the goal that issue is define.

***Various stages can be followed while undertaking soft system methodology:***

* Analyse the information system and produce the rich picture.
* Define root defination and it’s parts of the system
* Prepare the conceptual model.
* Compare idea of the framework with real framework
* Define and select practical choices for improvement
* Execute the new framework

1. **Rich Picture:** It is the illustration that disclose the component identified with the framework and relationship that should be considered so as to make improvement. Pictures, content, image, are utilized to make rich picture. Rich picture perform a view of the various whole system and can allow better arrangement, design, understanding and planning of a system. Rich pictures are generally drawn by hand and incorporate structures, procedures, issues or advancements. It has no rules and guidelines.



***Fig 1 : Rich Picture***

1. Root defination:- It is an organized depiction of whole framework. It illuminates the System procedures and issue that are held inside the framework. It likewise describe the points and elements of the framework that is being create.

**There are two types root defination they are:**

**- primary task root defination**

**- Issued-based root defination**

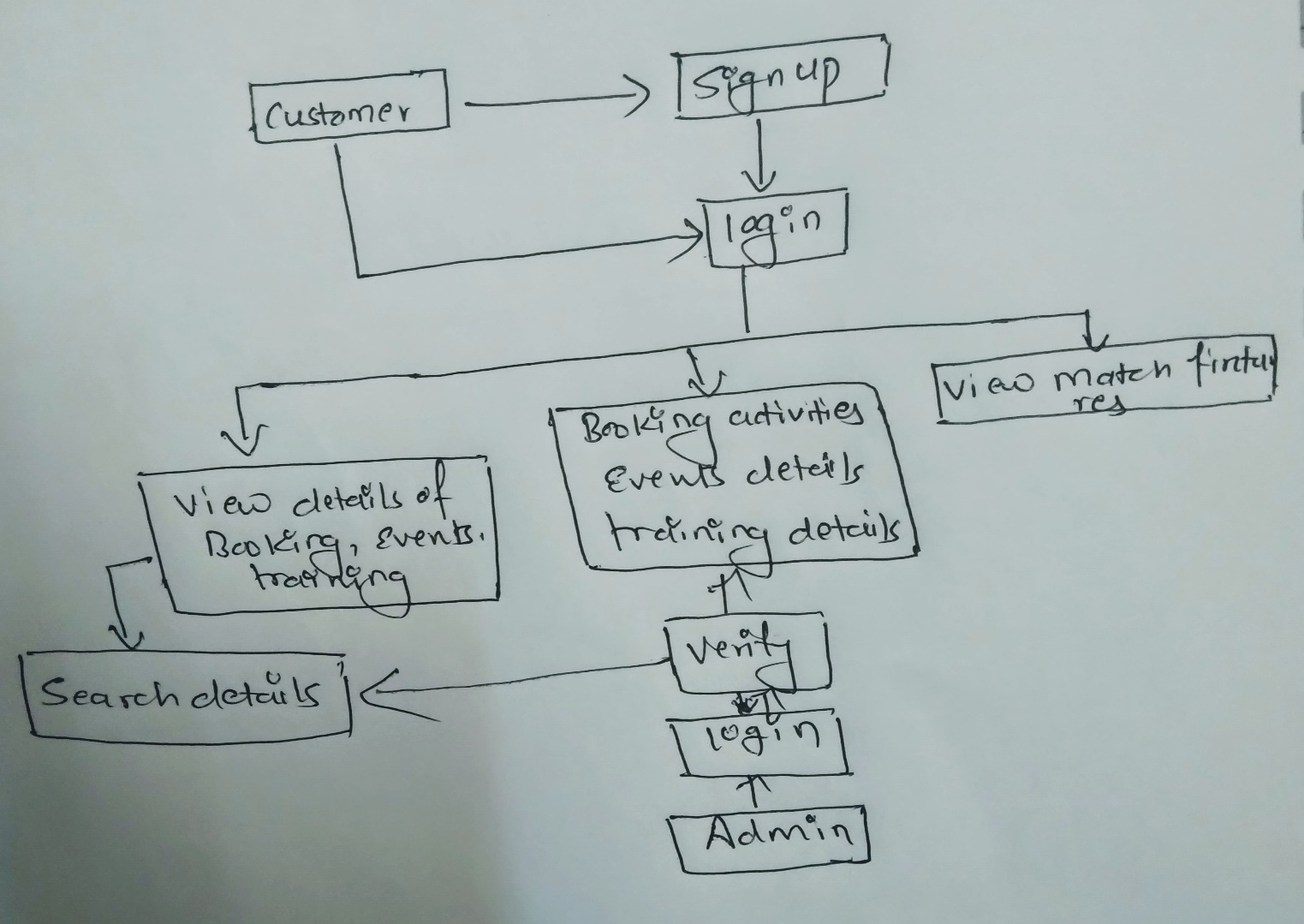
**CATWOE:** CATWOE analysis helps when defining and preparing a root definition*.*

* **Customer/Clients:** The primary phase of CATWOE investigation is to characterize these individuals and see how the procedure or framework will influence them. While recognizing your clients, it's useful to address the accompanying inquiries: Who will get the message? What issue do they have? What will be their response? Who are the victors and failures?

Doing your business you should consider your clients every day

* **Actor/Agents:** Actors are the individuals who are in manage of doing the various activities and task. Example:- booking details manage by admin.
* **Transformation:** Transformation are the progressions that framework brings out. The action that gives administration to customers.Example:- User or client can search the details about the activities .
* **World view:** World view clarify why the task and activities exists. Client can arrange the item sitting at the one spot making the item accessible all over.
* **Owners:** The person who is the reason the framework exist. Holder/owner of the project will be administrator who expect to make changes inside framework.
* **Environment:** The environment where the framework works and which may have negative outcomes with the difference in framework. The proposed project is easy to use application making the client work simple and quick.

1. **Conceptual model:** With the help of root defination and rich picture the conceptual model is produce. A conceptual model is a description of a framework, made of the structure of ideas which are utilized to help individuals know, learn, or reproduce a subject the model speaks to. It is additionally a lot of ideas.



***Fig 2: Conceptual model***

**2.3 Feasibility study**

* Feasibility study is done to know whether the task fits under conditions. The capacity of project, diverse factor to be finished effectively can be estimated by possibility examine. Feasibility study gives the positive and negative results of the project. It give essential details of varuous data and information of the project, likewise it help to recognize the hazard/issues and the arrangement.

The various types of feaibility studiues are shown below:

1. **Economic Feasibility Study:** Economic Feasibility mention to the wellness of the particular task to create monetary benefit/profit.The investigation is otherwise called money saving advantage examination. Here, cost to assemble the project is evaluated, for example, spending plan, distribution, beneficial or not. Given the monetary assets of the organization, is the project something that can be finished? The financial feasibility study is all the more normally called the cost/advantage examination.
2. **Technical Feasibility:** It recognizes whether the equipment and programming asset are practical or beneficial, supportable for the project. The significant viewpoint are recognized which are essential to create the project. For my task, client needs various tools with web office, database server to store item and client data, administrator, site with area name and so forth which are accessible
3. **Scheduling feasibility:** Scheduling feasibility is to check whether the task finishes inside the assigned time. With this practicality think about the task can convey in time. For my project, actual notice was given while selecting time for various task and sub task to finish. Gantt chart and various time estimation were preapred so that it helps the project to be completed in given time.
4. **Legal Feasibility:** legal feasibility is perform to check whether the proposed framework will in general disregard the legitimate principles/rules or struggle with lawful guidelines. It serves to investigations the lawful issue which may influence the task. The project is for scholarly reason (not for business) and doesn't have any issue that contention with the guidelines. Our project isn't against any lawful standards**.**
5. **Operational Feasibility:** Operational feasibility is the measure how successfully the suggest framework can tackle the issues, and satisfy the recognized demand. The executives of the project is welly kept up. The framework task gives satisfactory and reaction time. Expansive number won't be dynamic at once so there is no hazard while working.

**2.4 Requirement Analysis**

**2.4.2 Non Functional Requirement:**

* It call attention to the how framework functions or carry on. In another word, it clarify how the framework is performing. It does the testing that clarify how well the framework is

Some of the non functional requirement in my system are listed below:

|  |  |  |  |
| --- | --- | --- | --- |
| **ID** | **Title** | **Description** | **Rational** |
| NFR1 | Response/reaction quickely | System should reaction to the client input. | Provide fast service. |
| NFR2 | Usability | Client need to be feel simple to navigate and fell satisfaction | Easily useable and aslo be user friendly |
| NFR3 | Security | System must guarantee information security and have appropriate access control | to keep away from security issues and increase trust |
| NFR4 | Efficiency | system need to be quick to conduct out the undertaking effectively. | To avoid time loss. |
| NFR5 | performance | Web based application must to execute as much as expected and have quick information output. | To run system completely |
| NFR6 | implementation | Test must be done to check the framework./system is right and check the stage/platform. | To make guarantee the framework/system run completely checking each perspective |
| NFR7 | Reliability | Framework must give exact service. | Reliability service |
| NFR8 | portability | System must be available from anypalce and from any device. | Available from any device |
| NFR9 | Documentation | all the project require at least documentation that gives the outline, direction and in general idea regarding how a framework is constructed and how it is utilized. | for the client to learn and think about the framework |
| NFR10 | Scalability | System must be satisfactory to any change. | Capacity of satisfactory. |

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**2.4.4 Hardware and Software Requirements**

* Hardware requirements are explanation of PC segments/capacities for example storage, Versatility, model and Processor speed. For the best execution of the web utilization of my project the software and hardware requirement are:

***Software***

* **Operating System:-** Windows 10
* **Database:-** MySQL
* **Browser:-** Internet explorer, Google Chrome, Mozilla Firefox

***Hardware***

* **Harddisk:-** atleast 8GB
* **RAM:-** atleast 6GB
* **Processor:-** Minimum 2.30 GHz intel® core™ CPU @ 1.60Hz dual core