# Chapter 2 – Analysis

## 2.1 Introduction to analysis

Analysis is the 2nd phase of the SDLC (Software Development Life Cycle). The main objective of analysis phase is requirements determination. This is the most important phase in software development as it works to understand the requirement of the system and helps to develop a system meeting those requirements. This is done by working through the information like who will use the product, how the user will use the product, specific information included with any special users’ requirement and studying and analyzing each requirement of the current system and defining and prioritizing users’ requirements. Analysis is the least technical phase of the SDLC and needs effective social, communication and managerial skills to be successful.

## 2.2 Methodology

The analysis methodology information is organized by analytical function.

The analysis methodology information gives you both in-depth knowledge and best practices for:

* Applying data analysis system functionality
* Applying internal data analysis techniques within a function
* Interpreting data analysis results
* Making decisions or taking actions based on analytical results
* **Planning for analysis**

As with other project methodologies, the foundation for an analysis methodology is planning.

* **Source data for analysis overview**

For a given analytical project, you need one or more data sources for analysis.

* **Column analysis overview**

Column analysis is the component of IBM InfoSphere Information Analyzer used to assess individual columns of data. You control the scope of data subjected to column analysis at one time by selecting the database, tables, and columns to be analyzed.

* **Analysis settings**

The analysis settings provide a parameter-driven control for how certain analysis is to be performed by the system. The system is installed with default settings for these analysis options, which can be changed by users as required.

## 2.3 Feasibility Study

A feasibility study is an analysis that takes all of a project's relevant factors into account—including economic, technical, legal, and scheduling considerations—to ascertain the likelihood of completing the project successfully. Project managers use feasibility studies to discern the pros and cons of undertaking a project before they invest a lot of time and money into it. Feasibility studies also can provide a company's management with crucial information that could prevent the company from entering blindly into risky businesses.

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| --- | --- | --- | --- |
| S.no | Feasibility Study | What does this study find out? | How it is related to my project. |
| 1 | Product |  |  |
| 2 | Schedule Feasibility | Can this project be completed as schedule? Is there enough time to undertake the project? | I used WBS, milestone and Gantt chart for project schedule and its going as planned. |
| 3 | Technical Feasibility | Will the proposed system perform to the required specification? |  |
| 4 | Social Feasibility |  |  |
| 5 | Economic Feasibility |  |  |
| 6 | Market Research |  |  |
| 7 | Ethical Feasibility |  |  |

## 2.4 Requirement Analysis

### 2.4.1 Functional Requirement

Functional requirements are concerned with system services such as the scope of the system, the necessary business functions and the required data structures.

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| --- | --- | --- | --- | --- |
| **S.no** | **Title** | **Description** | **Rational** | **Dependencies** |
| FR1 | Database Connection | It makes connection between system and database. | To handle user information. | N/A |
| FR2 | Registration | Registering new user for getting access to privilege. | To create an account. | FR1 |
| FR3 | Login | Function to let user to get access to the system. | To login to the system. | FR2 |
| FR4 | Authentication | Authentication is required to check if account is correct one. | To avoid unknown user to get access. | FR2 |
| FR5 | Add class | If there is some new class in studio are added then admin can add those classes in the system. | To add new class. | FR3 |
| FR6 | Delete class | If some of the existing class are going to be close then admin can remove those class from the system. | To remove class. | FR3 |
| FR7 | Edit profile | User can edit their profile information.  Change their information. | To edit profile. | FR3 |
| FR8 | Delete profile | User themselves can delete their profile if they are closing contact with the studio. | To delete profile. | FR3 |
| FR9 | Add events | Any new events that the studio is going to organize or participate in are posted here by admin. | To add events. | FR3 |
| FR10 | Edit events | Only admin can edit existing events from system. | To edit events | FR3 |
| FR11 | Delete events | Admin can delete events that are not needed. | To delete events | FR3 |
| FR12 | Post tickets | Tickets of events organize by studio are posted in the system by admin. | To post tickets. | FR3 |
| FR13 | Tickets booking | User can book events tickets from home. | For booking event tickets. | FR3 |
| FR14 | Class booking | User can book available dance class anytime they want. | To book dance class. | FR3 |
| FR14 | Cancel booking | User can cancel their class and tickets booking before class or events starting day. | To cancel tickets and class booking. | FR3 |
| FR15 | Payment | Users who books tickets and class pays for them with the help of payment function | To pay for booking of tickets and class. | FR3 |
| FR16 | Add user | Only admin can add other user in the system. | To add user. | FR3 |
| FR17 | Delete user | Only admin can delete other user from the system | To delete user accounts. | FR3 |
| FR18 | Advertise performance | Admin can advertise other user or another artists’ performance. | To advertise. | FR3 |
| FR19 | Queries | user who has login access can ask questions in this section. | To post question and answer. | FR3 |
| FR20 | Log out | User can logout when they finish their work. | To logout the account. | FR3 |

### 2.4.2 Non- Functional Requirement

Whereas nonfunctional requirements deal with system constraints such as operation-how easy is it to use, performance and security, these are also known as supplementary requirements.

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| --- | --- | --- | --- | --- |
| **S.no** | **Title** | **Description** | **Rational** | **Dependencies** |
| NFR1 | Security | System should be secure by authentication method to secure data and information. | To secure data and information of users. | FR2 & FR3 |
| NFR2 | Performances | System should perform quick with better response time. | To make program run quick and smooth. | N/A |
| NFR3 | Availability | System should be available anytime user wants. | To ensure user can access the system anytime. | N/A |
| NFR4 | Privacy |  |  | N/A |
| NFR5 | Maintainability |  |  | N/A |
| NFR6 | Usability |  |  | N/A |
| NFR7 | Integrity |  |  | N/A |
| NFR8 | Scalability |  |  | N/A |
| NFR9 | Reliability |  |  | N/A |
| NFR10 | Serviceability |  |  | N/A |
| NFR11 | Recoverability |  |  | N/A |
| NFR12 | Legal |  |  | N/A |
| NFR13 | Capacity |  |  | N/A |

### 2.4.3 MoSCoW Prioritization

### 2.4.4 SRS(System Requirement Specification)

## 2.5 Use Case diagram

## 2.6 NLA & Initial Class Diagram