

# **SRS (Software Requirements Specification) for an IT Galaxy**

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## **1.1 Purpose**

The purpose of this document is to define the requirements for an IT site. The site will allow users to create an account, write blog posts related to IT sector, and interact with other users through comments and private messages. The web application is to be developed for where we invite writers and readers from all over the world to come together and share their thoughts, ideas, and experiences on an IT related topic. Our mission is to create a space for people to express themselves, share their expertise, and engage in meaningful conversations. We believe that everyone has a unique perspective to offer, and that by sharing our ideas, we can learn from one another and broaden our horizons.

## **1.2 Scope**

The site will consist of a web application accessible through a web browser. Users will be able to create and manage their own accounts, create blog posts, and comment on other user posts, and can use private message feature to communicate with each other.

## **1.3 Definitions, Acronyms, and Abbreviations**

**IT** Information Technology  
**SRS** Software Requirement Specification  
**POJO** Plain Old Java Object

## **1.4 References for Requirement Analysis and Design**

- Google for problem solving
- <http://www.javaworld.com/javaworld/jw-01-1998/jw-01-Credentialreview.html>
- Database Programming with JDBC and Java by O'Reilly
- <https://www.geeksforgeeks.org/how-to-connect-mongodb-with-spring-boot/>

## **1.5 Overview**

### **1.5.1 Product Perspective:**

This site will be a standalone web application, designed to be easily accessible and

usable for users of all skill levels.

#### 1.5.2 Product Features:

- ✓ User registration and login
- ✓ Ability to create and edit blog posts
- ✓ Commenting system for users to interact with each other
- ✓ Search functionality to allow users to find posts by keyword or tag
- ✓ User profile pages to showcase personal information and recent activity
- ✓ Moderation tools to allow for easy management of content and users
- ✓ Responsive design to ensure compatibility across devices

#### 1.5.3 User Classes and Characteristics

The blogging site is designed to be accessible to users of all skill levels. Users may include individuals, organizations, or businesses looking to create and share content online.

#### 1.5.4 Operating Environment

The blogging site will be accessible through a web browser on a variety of devices, including desktop computers, laptops, tablets, and smartphones. The site will be hosted on a secure server with regular backups and maintenance.

#### 1.5.5 Objective

The objective of a blogging site can vary depending on the goals of the blogger, but some common objectives may include:

1. Sharing information: A blog can be used to share valuable information on a particular topic or niche, whether it's information related to the IT sector, tips, opinions, reviews, or insights.
2. Building a community: By consistently publishing quality content, bloggers can attract a loyal following of readers who engage with their posts, leave comments, and share their content with others.
3. Establishing authority: Bloggers can use their platform to establish themselves as experts or thought leaders in their field by sharing their knowledge and experiences.
4. Generating leads: A blog can be an effective way to attract potential customers or clients to a business or service by providing valuable information that addresses their needs or pain points.
5. Personal branding: A blog can serve as a platform for individuals to establish their personal brand, showcase their skills or talents, and build a professional reputation.

## Table of Content

### 1. List of Functions:

Sr. No.	Function ID	Name of the Function
1	F - 01	User Registration
2	F - 02	Log In – Log Out
3	F - 03	Blog Post Creation
4	F - 04	Blog Editing
5	F - 05	Blog Deleting
6	F - 06	Commenting System
7	F – 07	Tagging
8	F - 08	Searching
9	F - 09	User Profile Page
10	F - 10	Moderation Tools
11	F - 11	Responsive Design

### 2. Function Descriptions

i. Function ID : F – 01

- a. Purpose : i. To provide unique identification to each user.  
: ii. The track of users will be stored.  
: iii. User registration is to sign up user for subscriptions, services and other programs or plans.
- b. Entities Involved : User (POJO)
- c. Organizational Unit :
- d. Frequency : Once while creating new account

ii. Function ID : F – 02

- a. Purpose : i. To allow user to Login/Logout of the system.  
: ii. User will be logged out if inactive for 30 minutes.
- b. Entities Involved : User (POJO)
- c. Organizational Unit :
- d. Frequency : Daily

- iii.     Function ID                     : F – 02
  - a. Purpose                     : i. To allow user to create blog to share their ideas and experiences.
  - b. Entities Involved         : Blog Class
  - c. Organizational Unit     :
  - d. Frequency                 : Daily
  
- iv.     Function ID                     : F – 04
  - a. Purposes                 : i. To allow users to edit there created blog if any mistake occurs.
  - b. Entities Involved         : Blog Class
  - c. Organizational Unit     :
  - d. Frequency of Use         : High
  
- v. Function ID                     : F – 05
  - a. Purposes                 : i. User can delete his/her own blog
  - b. Entities Involved         : Blog Class
  - c. Organizational Unit     :
  - d. Frequency of Use         : Medium
  
- vi.     Function ID                     : F – 06
  - a. Purposes                 : i. User or Viewer are allowed to add comment on different blogs.  
                                      : ii. The comment can be deleted by viewer who commented that particular comment or the author

of the blog can also delete those comments.

b. Entities Involved : Comment, Blog (POJOs)

c. Organizational Unit:

d. Frequency of Use : Medium

vii. Function ID : F – 07

a. Purposes : i. The User can tag  
different user using “#”.  
: ii. User mention another  
user using tagging system  
and other user will be  
notified.

b. Entities Involved : Tagging (POJO)

c. Organizational Unit:

d. Frequency of Use : Medium

viii. Function ID : F – 08

a. Purposes : i. User can search any blog  
or any another user.  
: ii. Accessing of blog or user  
profile will be faster.

b. Entities Involved : User, Blog (POJO)

c. Organizational Unit :

d. Frequency of Use : High

ix. Function ID : F – 09

a. Purposes : i. User can view his profile,  
update his profile and add  
some personal information  
in profile.

: ii. Personal Information such as, Git hub profile link, twitter account link, etc.

b. Entities Involved : User (POJOs)

c. Organizational Unit:

d. Frequency of Use : Medium

x. Function ID : F – 10

a. Purposes : i. This online website should give facility to recover account in case of 'Forgot Password Scenario'.

b. Entities Involved : User (POJOs)

c. Organizational Unit:

d. Frequency of Use : Low

xi. Function ID : F – 11

a. Purposes : i. The blogging website would need to be highly concurrent. There will be multiple blogs created at particular point in time. The service should handle this type of load gracefully and fairly.

b. Entities Involved : - - -

c. Organizational Unit:

d. Frequency of Use : - - -

### **3. Specific Requirements**

#### **3.1 Performance**

- The site will be designed for optimal performance, with fast load times and minimal downtime. The server will be capable of handling a large number of simultaneous users.

#### **3.2 Security**

- The site will be designed with security in mind, with measures in place to protect user data and prevent unauthorized access.

#### **3.3 Usability**

- The site will be designed with a clean and intuitive user interface, with features and functionality easily accessible and understandable to users of all skill levels.

#### **3.4 Maintainability**

- The Fashion 24 x 7 (Online Clothes Shopping Website) should be able to maintain with as less efforts & changes as possible.

#### **3.5 Portability**

- The specified application must provide portability in order to change components of architecture in case of emergencies.
- It should have – free facility to replace the databases to enhance the efficiency in needed in future. Like replacement from MYSQL to Oracle or MYSQL to MongoDB.

#### **3.6 Accessibility**

- The online website must be accessible via desktops, laptops, smart devices including mobile phones, tablets etc.
- The UI – UX must not hamper in case of above options. It should remain uniform throughout all the devices.

#### **3.7 Durability**

- The overall application should be durable, especially in the terms of data, product availability, and uniform performance over time.

### 3.8 Other Requirements

**Hardware:** The application is expected to function on Dell G3 – 15 with 1100 MHz Pre Processor Equivalent or Above, 4 GB RAM, 512 GB HDD.

**Software:** The IT Galaxy Site shall work on Microsoft Windows operating systems family (MS Windows XP & Above). It configures to work with Mongo DB database. This System works on Apache Tomcat server. It uses browser Google Chrome Browser.

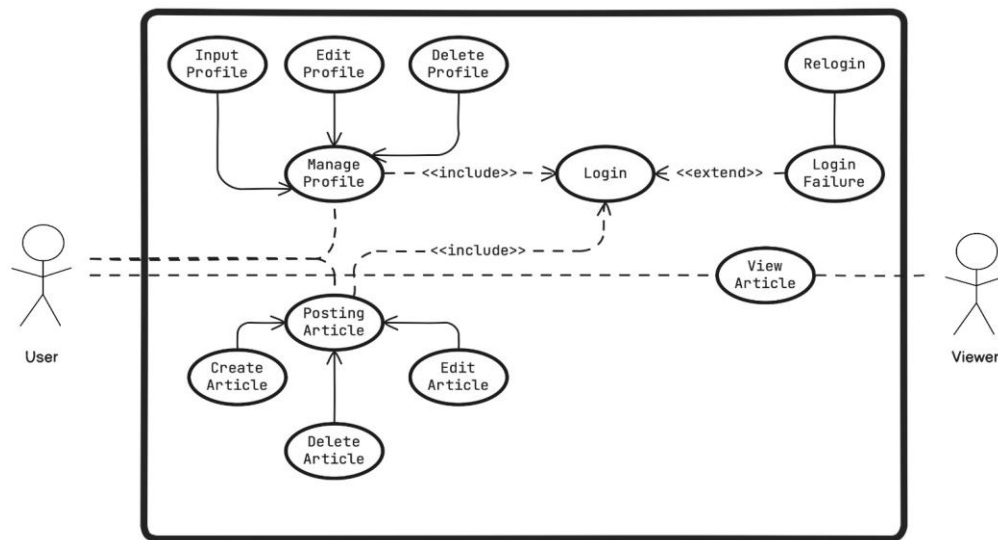
## 4. Glossary:

- Post: An article or piece of content created by a user on the site.
- Comment: A response to a blog post or another user's comment.
- Category: A classification system used to organize content based on topic or them.
- Content: Any type of media created by the user, including text, images, and videos.
- Authentication: The process of verifying a user's identity.



## 5. UML Diagram:

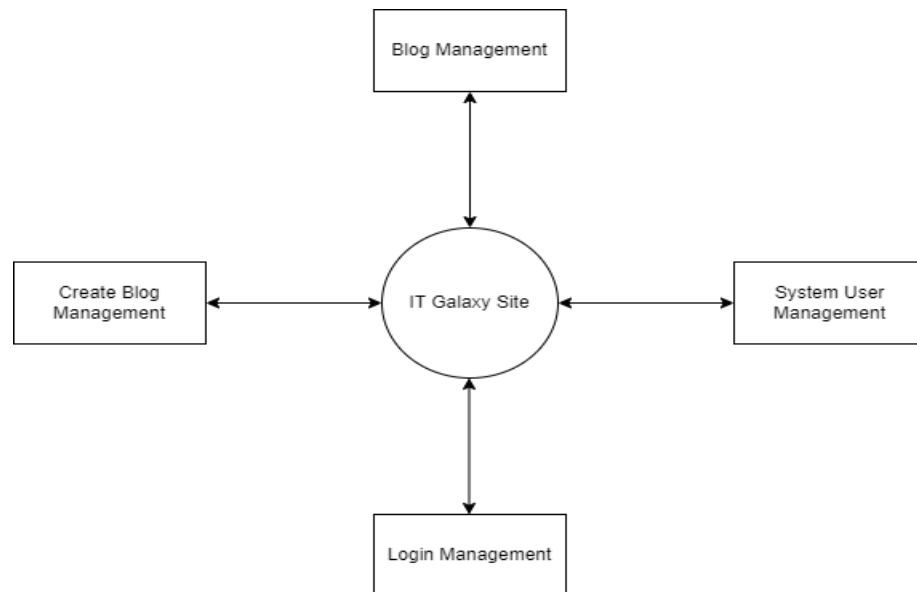
### 5.1 Use Case Diagram:



Use Case Diagram for IT Galaxy Site

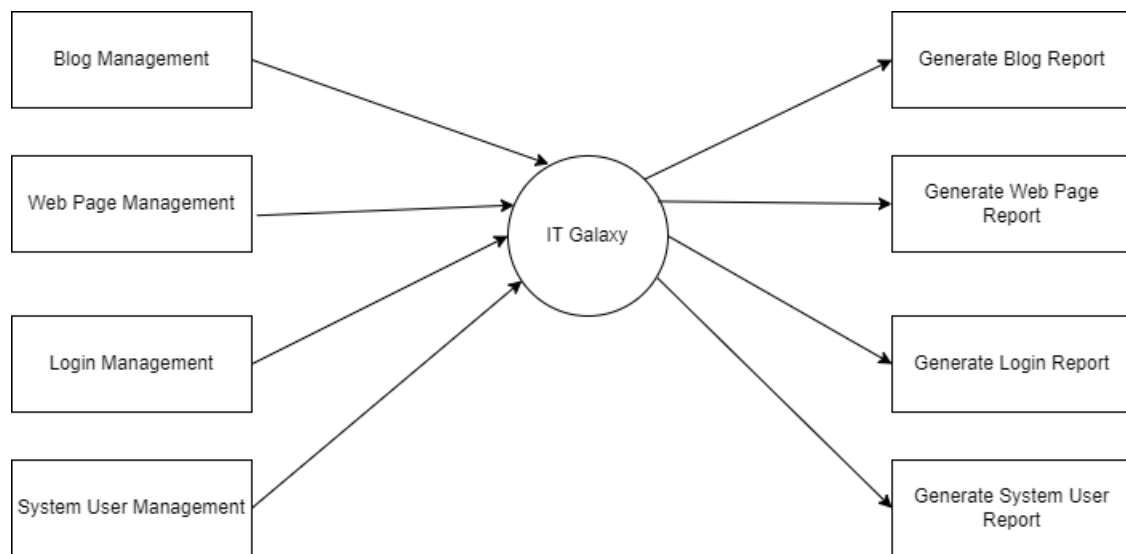
### 5.2 Data Flow Diagram

#### 5.2.1 Zero-Level DFD Diagram



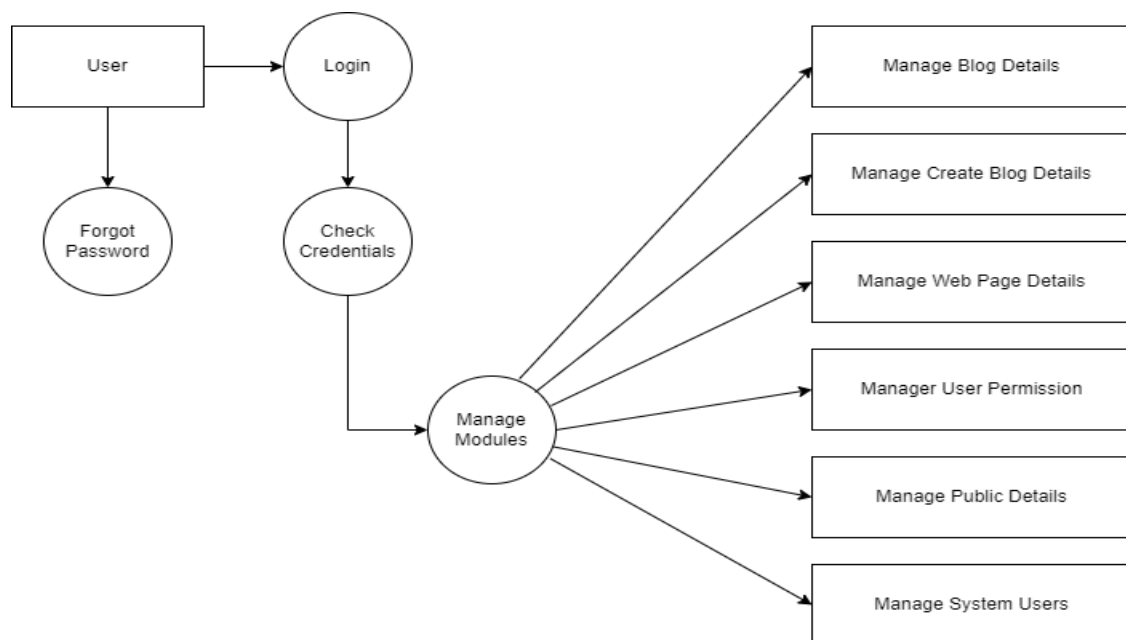
Zero Level DFD Diagram for IT Galaxy Site

### 5.2.2 First-Level DFD Diagram



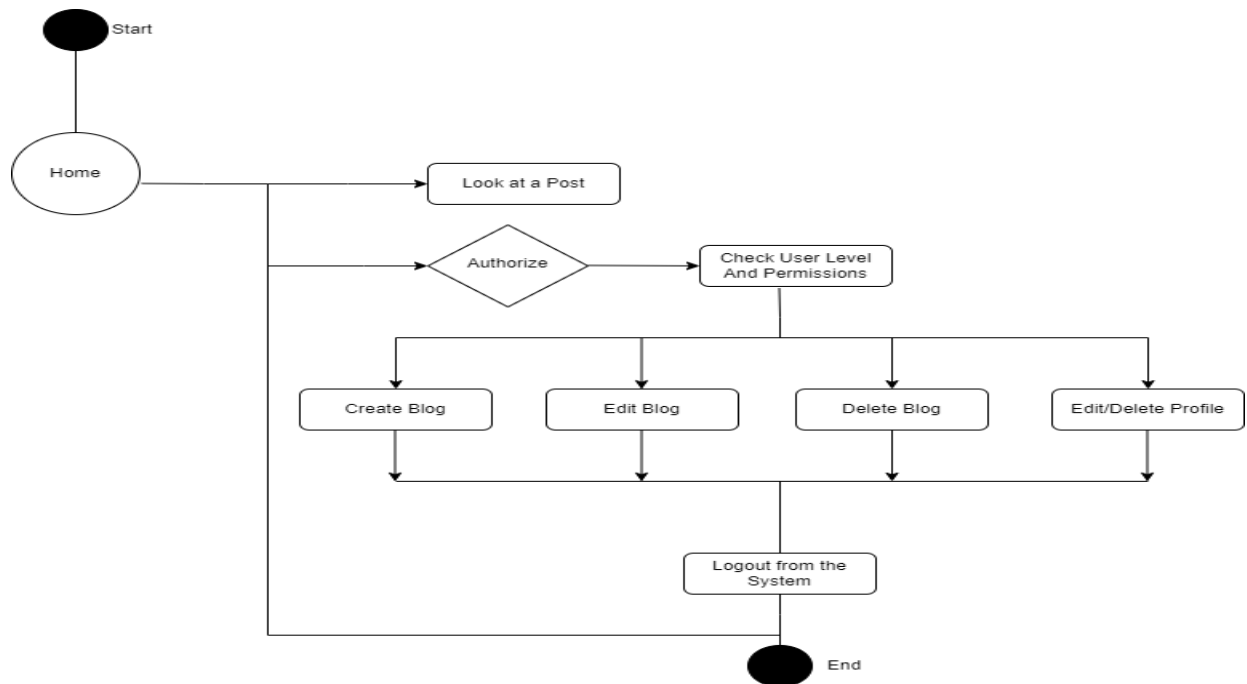
First Level DFD Diagram for IT Galaxy Site

### 5.2.3 Second-Level DFD Diagram



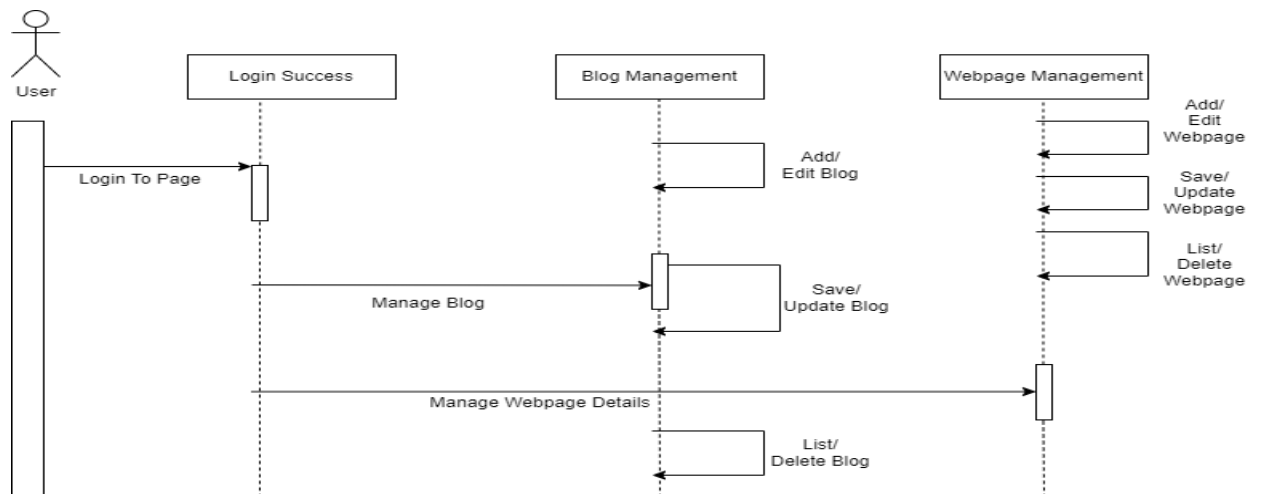
Second Level DFD Diagram for IT Galaxy Site

### 5.3 Activity Diagram



Activity Diagram for IT Galaxy Site

### 5.4 Sequence Diagram



Sequence Diagram for IT Galaxy Site