IBM

Conduit Project

System Requirements Specification Document v 1.0

Table of Contents:

1.   Introduction

1.1   Scope:

This document describes the scope of the requirements for the Conduit project for Abc Corporation The document details all the high level requirements with intent to validate Abc's requirements. This document should be used by the Architect and the developers to design the Solution Architecture for the project.

The key system that is involved in the integration is Conduit project.

The list of priorities of Conduit project is:

- User Registration and Login
- User can add their photo and bio to their profile
- User can view all the posts or can view only the posts he/she liked.
- User can post an article which will be visible to all
- All the users can view the article, like the article and post comment
- User will get notification when others comment on the his/her post
- User can the view the profile and posts of those who commented
- User can delete or edit his/her posts.

1.2   Management Summary:

ABC Corp is a Private organization which focuses on owning social media platforms for wide range of customer base. Conduit project is an online platform which will give user an ability to view the article submitted by others and post his/her own article by creating an account. Once the account has been created the user can like and comment on other`s post as well. Users can add photo and bio to their profile. Notification will be sent when user comment on someone's post.

1.3 Definitions:

- Spring Boot: For developing Microservices (Middleware)
- NodeJS: For Microservices
- MySQL: For developing database for storing all User information (Back end)
- MongoDB: For Developing database for storing all user posts and comments.
- Angular: For developing functional Web pages (Front end)
- Bootstrap: For designing user interface

1.4 Overview:

This Document will describe all the main requirements that will require to develop this application. Specifically it will outline the type of database used, technology used for front end, back end and user interface. It also outlines the infrastructure and working of application.
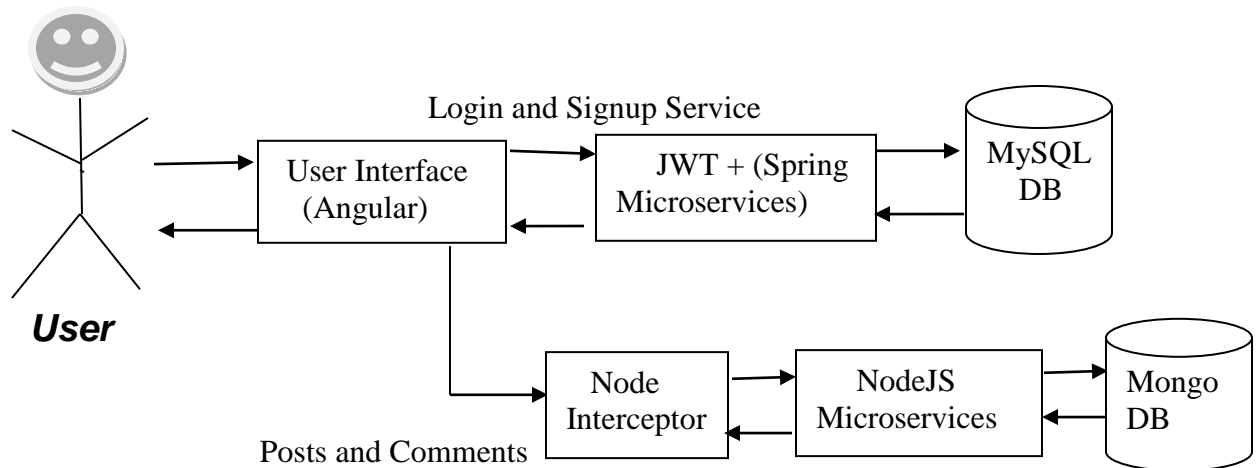
2.   System Objectives

Figure 1: System Context Diagram

The diagram above explains the main conceptual elements in the solution and its relationships with the architecture. A user first interacts with Home page and can view the articles but can't interact with them without logging in and incase if user wants to post his/her own article or want to like and comment on other user's post user will have to login or sign up. Signup and Login request will be processed by spring microservices which will look for an account in the database and create a new account in database if there is none. If user wants to post an article or write a comment on article that requests will be processed by NodeJS microservices and it will store the data in MongoDB.

Conduit project	Core application that's is to be developed for providing a platform to view people's post and interact with it by signing up. By having an account any user can post his/her own comment.
User Interface	It is an angular application in which user

	fills out the data and can view all posts and can see only the post user liked.
Middleware	Spring Microservices are used for login and signup services. NodeJS services are used as middleware for posting article, commenting and liking services.
Database	MySQL database is used to store all user information and Data MongoDB is used for rest of article and comment Data users will input.

Cloud services used

Amazon web services (AWS)	Deployed MySQL database.
mLab	Deployed MongoDB
Heroku	Deployed Node and Node Interceptor
Pivotal Cloud Foundry	Deployed Angular, Mail service, JWT service.

3. Functional Requirements

3.1 Brief Description

The conduit project is an online platform to view people's articles and posts and by signing up to platform any user can post article as well as like and comment on other's article.

3.2 Interface Details

Pls see the System Objective diagram.

3.3 Table of requirement

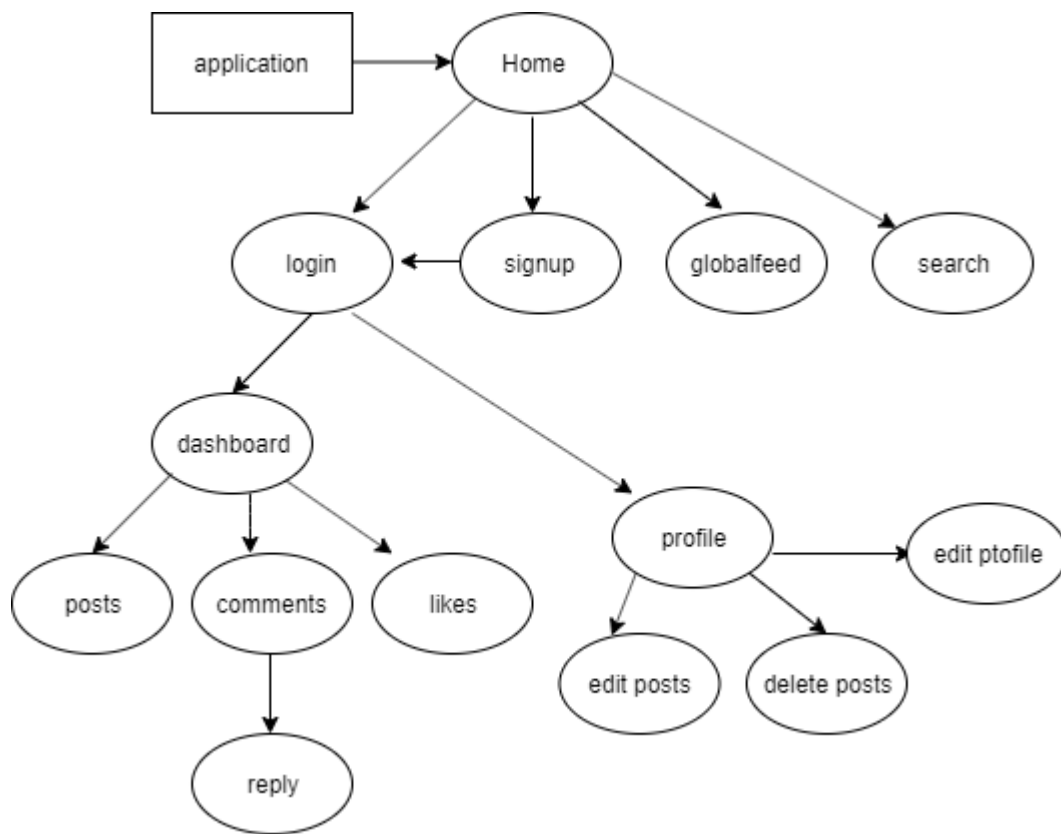| Flow	Conduit project will direct the user to homepage and let user view all articles posted y other users.
	To interact with any articles or post own article the user will have to login or signup. Once the user is logged in he/she can like and post comment on other's comment and can see just the articles he liked as well as post User's own article if user wants to.
	User can add photo and bio to user profile page and in profile page user will see all of his/her post which user can edit and delete if user wants to.
	Other people can see the user profile by clicking on username in articles or comment.

Figure 2 Application Flow Diagram

4.   Database Schema:

There is 2 tables which conduit uses to store and display data. User table is for saving the User detail who are registering for the first time on the website, it's saved in MySQL. Another table is Threads table and it saves all the user posts, number of likes as well as all the comments.

User
-id : int (primary key) -username : string -email : string -bio : string -password : string -url : string

Threads
-id : int -username: string -posts : string -date : Date -likes : string -comment : array -image_url : string -tags : strings

Saved in MySQL DB   saved in MongoDB