BLOG WEBSITE

Software Design Document

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1. INTRODUCTION

1.1 Purpose

This software design document describes the architecture and system design of the online blogging system. The online Blogging website is a perfect platform for students, teachers, and institutional administrative purposes. Blogs range from personal to political and can focus on one narrow subject or a whole range of subjects. This website is easy to use and full-featured.

1.2 Scope

This Blogging system will allow the users to publish the writing, videos, images if he/she has credentials to log in. The end users can use this application with the help of various design elements.

Dashboard: It is the default page of the blogging website, in which users can read the blog contents and use various options such as like, share, comment, etc.

Media: Users can access the videos, audios, images by clicking the specific options.

Profile: In this section, users can personalize their profile like password change, profile picture change, etc.

1.3 Overview

This document mainly focuses on an overview of the system, basic requirements, architectural design, data design, design of the user interface. This system increases mutual learning among the public.

1.4 Definitions and Acronyms

Definitions

- API: Application Programming Interface
- REST: Representational state transfer

Acronyms

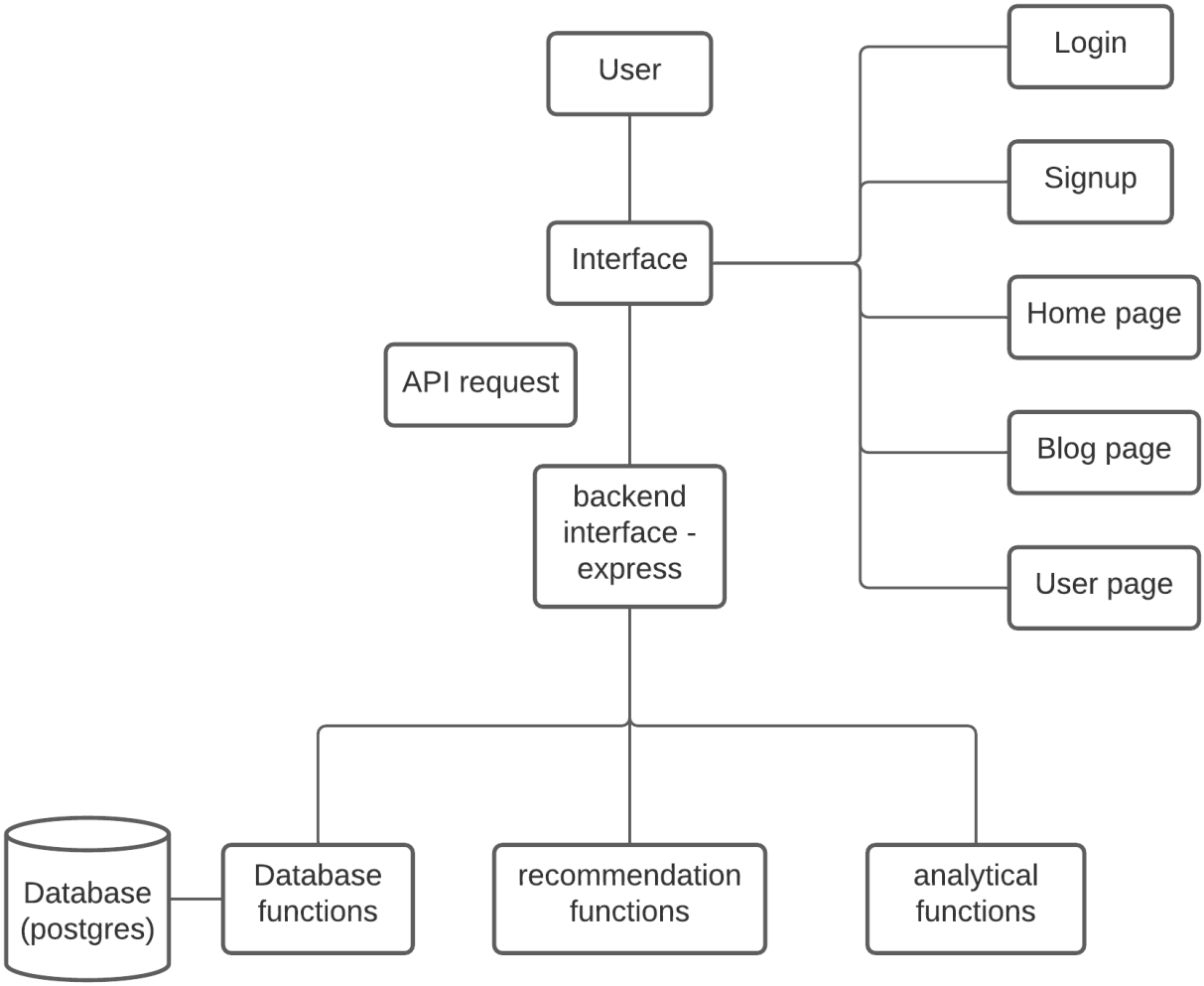
- Blogger: They have the accounts with the help of which they can post and read the posted blog contents.
- Viewer: They are only able to view the blog content.

2. System Overview

This project represents an online blogging system. The main aim of any blogging system is to share information and knowledge about the topics that are of interest to anyone. So, the audience can easily get their hands on the content that they need. This system allows the users to search, view, read and like the blogs of their interest, follow their favorite blogger and see their day-to-day usage concerning the website. Here, the bloggers are the ones who create their blogs in this system. So, the system provides them the ability to create and delete blogs, view their follow count and blog history.

3. System Architecture

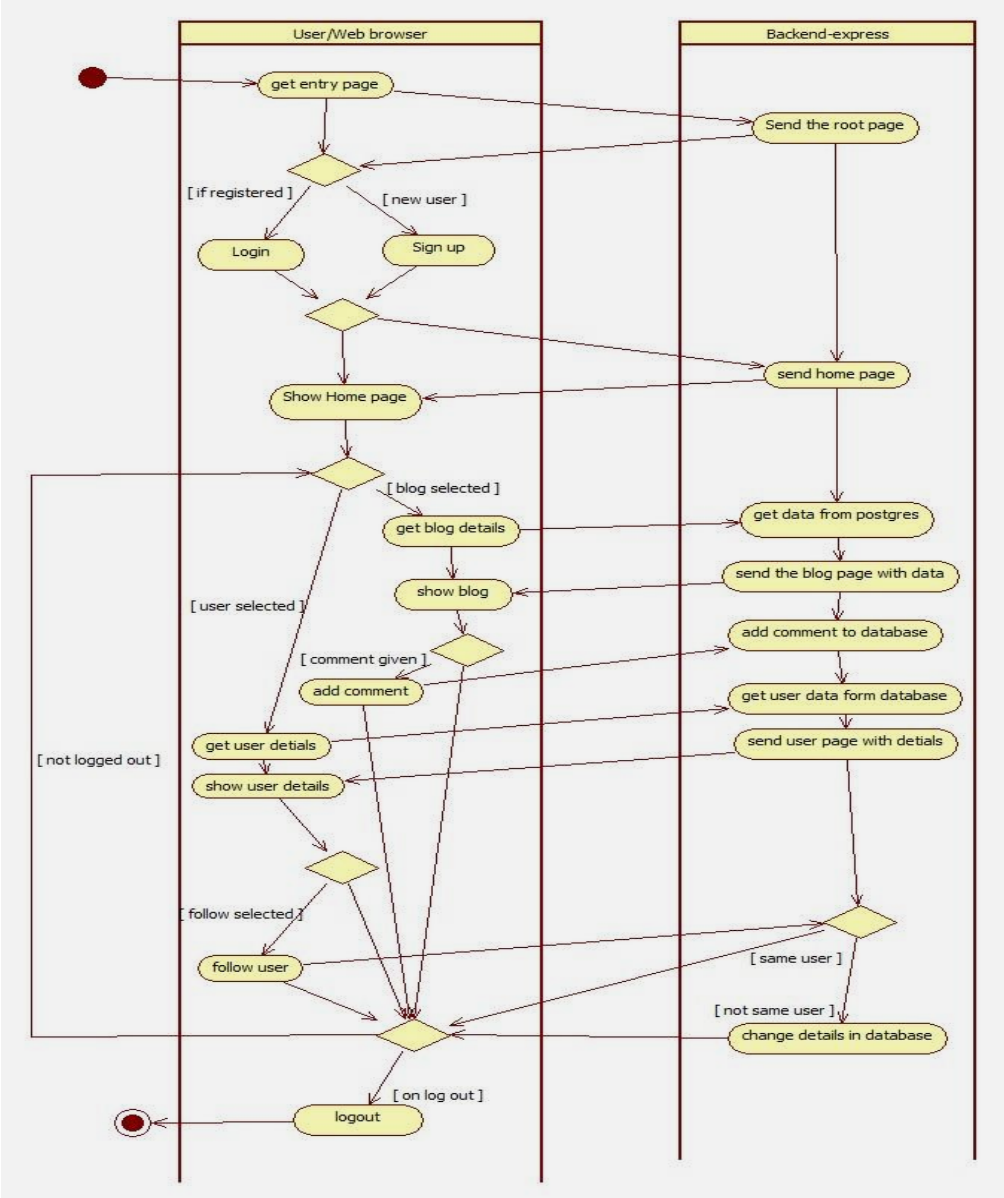
3.1 Architectural Design



The interface contains five modules: Login, Signup, Homepage, Blog page, user profile page. These pages are sent from the express backend to the web browser to display. Other backend functionalities are divided into three modules, viz.

- Database functions: all functions related to database actions like queries and data entry
- Recommendation functions: functions related to recommendations to the user. It uses the database functions to get the data.
- Analytical functions: functions related to the analytics of the user are given by this module.

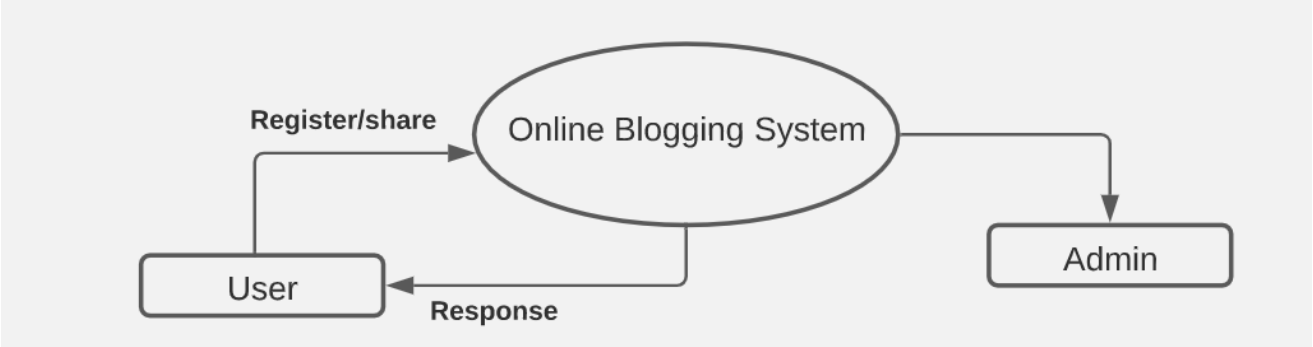
3.2 Activity diagram



3.3 Data Flow Diagram(DFD)

A data-flow diagram (DFD) is a graphical representation of the "flow" of data through an information system. DFDs can also be used for the visualization of data processing (structured design). On a DFD, data items flow from an external data source or an internal data store to an internal data store or an external data sink, via an internal process.

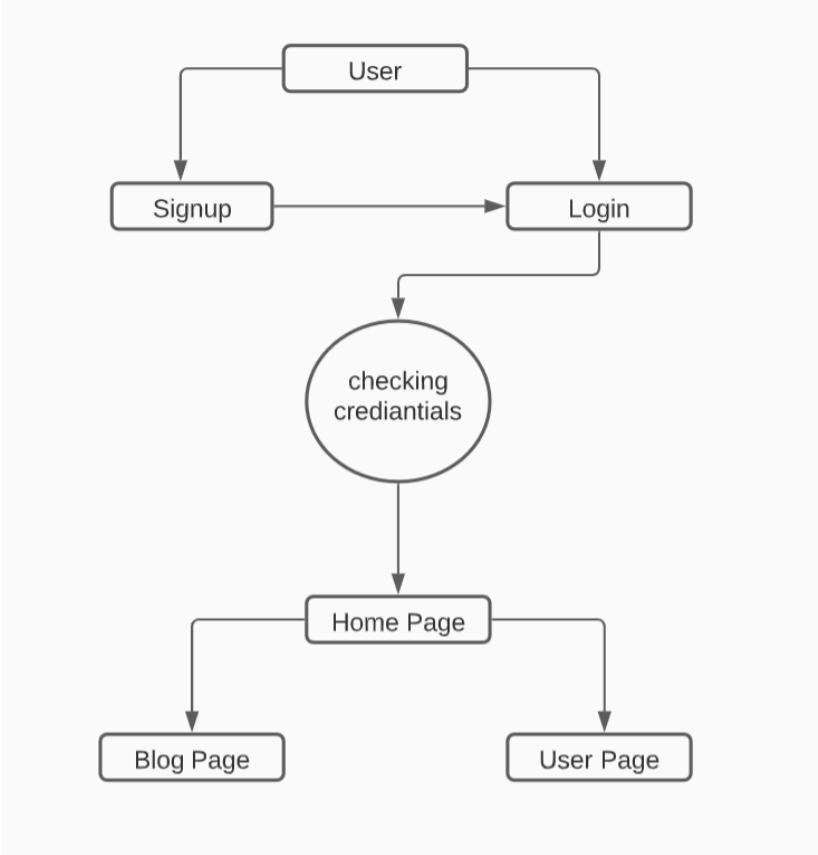
- **Context Level(Level 0)**



Online blogging system - i.e BLOG WEBSITE

This context-level data flow diagram, which shows the interaction between the system and external agents which act as data sources and data sinks. On the context diagram (also known as the Level 0 DFD) the system's interactions with the outside world are modeled purely in terms of data flows across the system boundary. This context diagram shows the entire blog website as a single process.

- **High-Level Diagram(Level 1)**: The purpose of this level is to show the major high-level processes of the blog website and their interrelation. A level-1 diagram must be balanced with its parent context level diagram, i.e. there must be the same external entities and the same data flows, these can be broken down to more detail in level 1, e.g. the "Login" data flow leads to the home page then further it could be spilled into "Blog Page" and "User Page" and still be valid.



4. DATA DESIGN

4.1 Data Description

The category of each blog is saved in a vector-like fashion. Similarly, the interested categories of the users are processed as vectors for ease of matching. The data is passed to the backend using API calls following REST architecture. And the resultant data will be an object. The data is stored in the Postgres database, provided by Heroku. It will be organized as a table of records.

4.2 Data Dictionary

4.2.1 User

Description: The user entity is used to represent a user in the system.

Attributes: name, username, password, email, dob, country, usage, blogs, gender, history, and interests.

4.2.2 Blog

Description: The blog entity is used to represent a blog and store its details.

Attributes: id, user, heading, content, category, comments, and view count

4.2.3 Comment

Description: Comment entity represents a comment given in the blog

Attributes: id, blog, comment.

6. HUMAN INTERFACE DESIGN

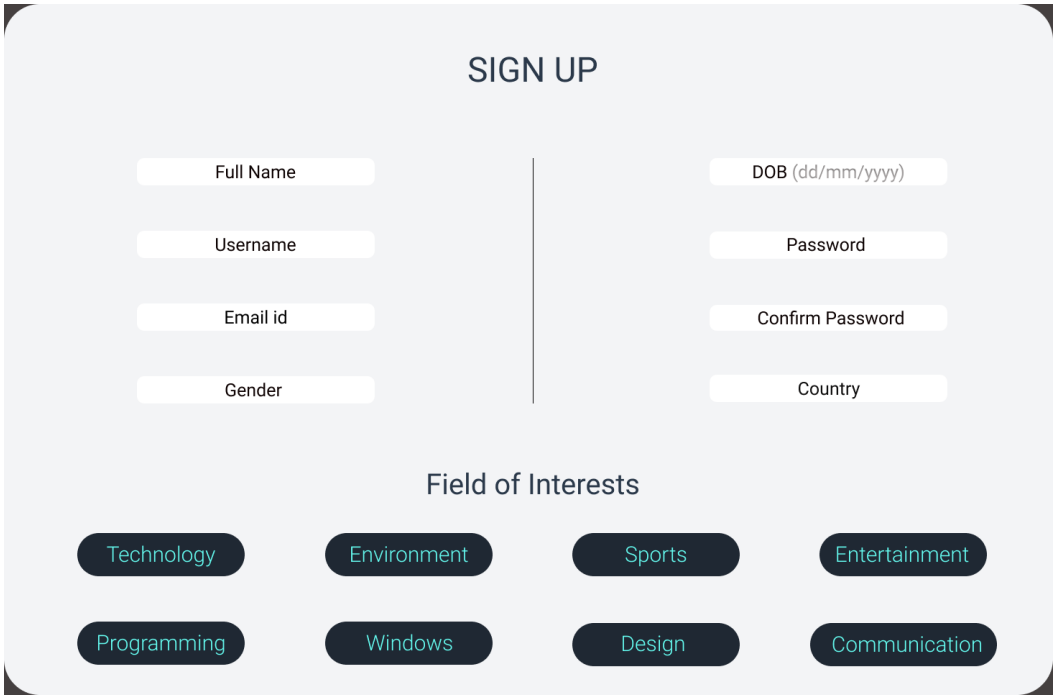
6.1 Overview of User Interface

The User has to log in to access the blog website. On the login page, the user is required to enter a registered email address and password. If the user is new to the website the user has to sign up to the blog website. On the signup page, the user is required to enter some necessary details such as name, email, password. The user is also required to give some field of interest based on which the user can get blog recommendations. After giving the details and creating an account the user can log in using the email and password.

Once the user has logged in, the home page of the blog website is shown. On the home page, the user can view the various options available in the navigation bar available at the top of the webpage. The user can click the respective button to access the respective feature. The user profile picture is also displayed on the top left corner of the webpage. On clicking the profile picture, the user profile is displayed. In the user profile, basic details provided during the signup process are displayed, and the usage history and activity history are also displayed.

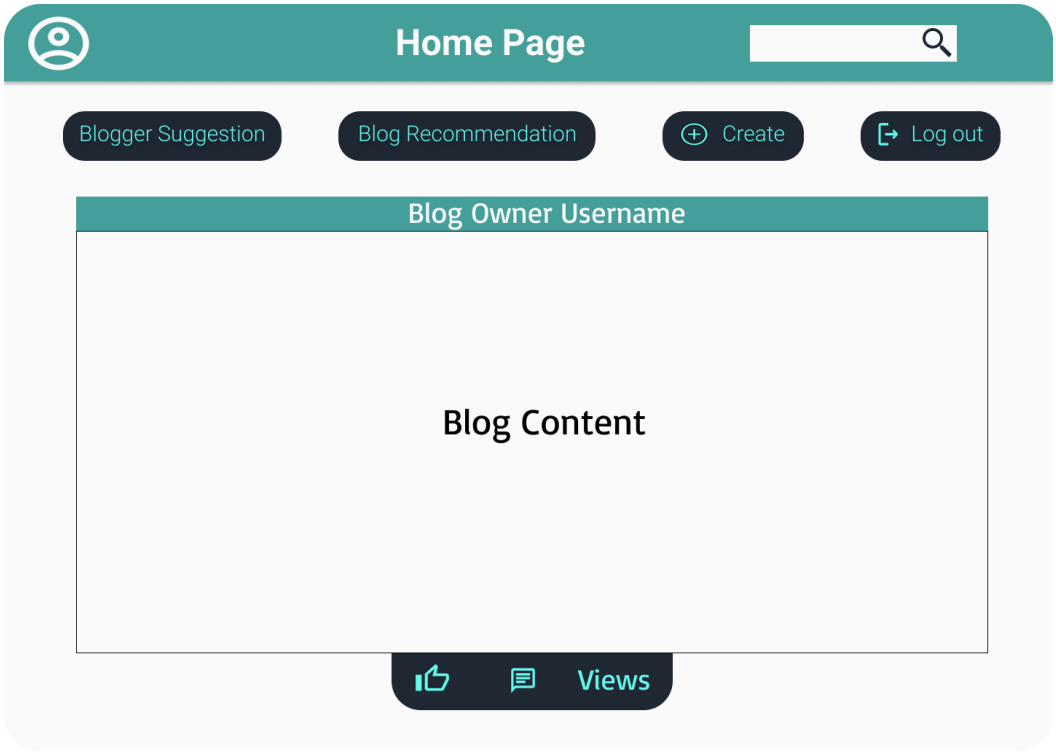
5.2 Screen Images

5.2.1 User Sign up



5.2.2 User Login

5.2.3 Home Page



5.2.4 User profile page