ATAL BIHARI VAJPAYEE- INDIAN INSTITUTE OF INFORMATION TECHNOLOGY AND MANAGEMENT GWALIOR-474015

DIGITAL HEALTHCARE SYSTEM
SOFTWARE ENGINEERING LAB
FINAL REPORT

Submitted To:

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TABLE OF CONTENTS

TOOLS AND TECHNIQUES

Technical feasibility deals about testing if the existing technology have a compatible to new system and develop the proposed system. Project MEDICARE is a complete web based application.
The main technologies and tools that are associated with MEDICARE are :

- MongoDB
- Express
- React
- Node Js
- Diagram drawing tools
- Draw.IO

Each of the technologies are freely available and the technical skills
required are manageable. Time limitations of the product development
and the ease of implementing using these technologies are synchronized.
Website will be hosted on free web hosting sites. From these it's very
clear that the project is technically feasible.

MongoDB

MongoDB is a cross-platform document-oriented database program. Classified as a NoSQL database program, MongoDB uses JSON-like documents with optional schemas. MongoDB is developed by MongoDB Inc. and licensed under the Server Side Public License.

Advantages:

- Schema less − MongoDB is a document database in which one collection holds different documents. Number of fields, content and size of the document can differ from one document to another.
- Structure of a single object is clear.

- No complex joins.
- Deep query-ability. MongoDB supports dynamic queries on documents using a document-based query language that's nearly as powerful as SQL.
- Tuning.
- Ease of scale-out − MongoDB is easy to scale.
- Conversion/mapping of application objects to database objects not needed.
- Uses internal memory for storing the (windowed) working set, enabling faster access of data.

Express

Express is a minimal and flexible Node.js web application framework that provides a robust set of features for web and mobile applications.

Advantages:

- Makes Node.js web application development fast and easy.
- Easy to configure and customize.
- Allows you to define routes of your application based on HTTP methods and URLs.
- Includes various middleware modules which you can use to perform additional tasks on request and response.
- Easy to integrate with different template engines like Jade, Vash, EJS etc.
- Allows you to define an error handling middleware.
- Easy to serve static files and resources of your application.
- Allows you to create REST API server.
- Easy to connect with databases such as MongoDB, Redis, MySQL

React Js

React is an open-source, front end, JavaScript library for building user interfaces or UI components. It is maintained by Facebook and a community of individual developers and companies. React can be used as a base in the development of single-page or mobile applications.

Advantages:

- Easy to Learn and USe. ReactJS is much easier to learn and use.
- Creating Dynamic Web Applications Becomes Easier.
- Reusable Components.
- Performance Enhancement.
- The Support of Handy Tools.
- Known to be SEO Friendly.
- The Benefit of Having JavaScript Library.
- Scope for Testing the Codes.

Node Js

Node.js is an open-source, cross-platform, back-end, JavaScript runtime environment that executes JavaScript code outside a web browser.

Advantages:

- Easy to learn
- Supported widely by Google Chrome
- Node.js offers easy scalability
- Fullstack Javascript
- Offer High Performance
- Single Programming Language
- Large and Active Community
- The ability of Caching
- Support for Commonly Used Tools
- Handles Requests Simultaneously

IMPLEMENTATION

2.1 Introduction:
These chapter contents are full of descriptions of the proposed system which is easy to use and confidential.

2.2 Security:

Any bank account has a security password. We use SSL and md5 algorithms for password encryption and between bank transactions. We also use Email to notify wrong passwords more than 3 times.
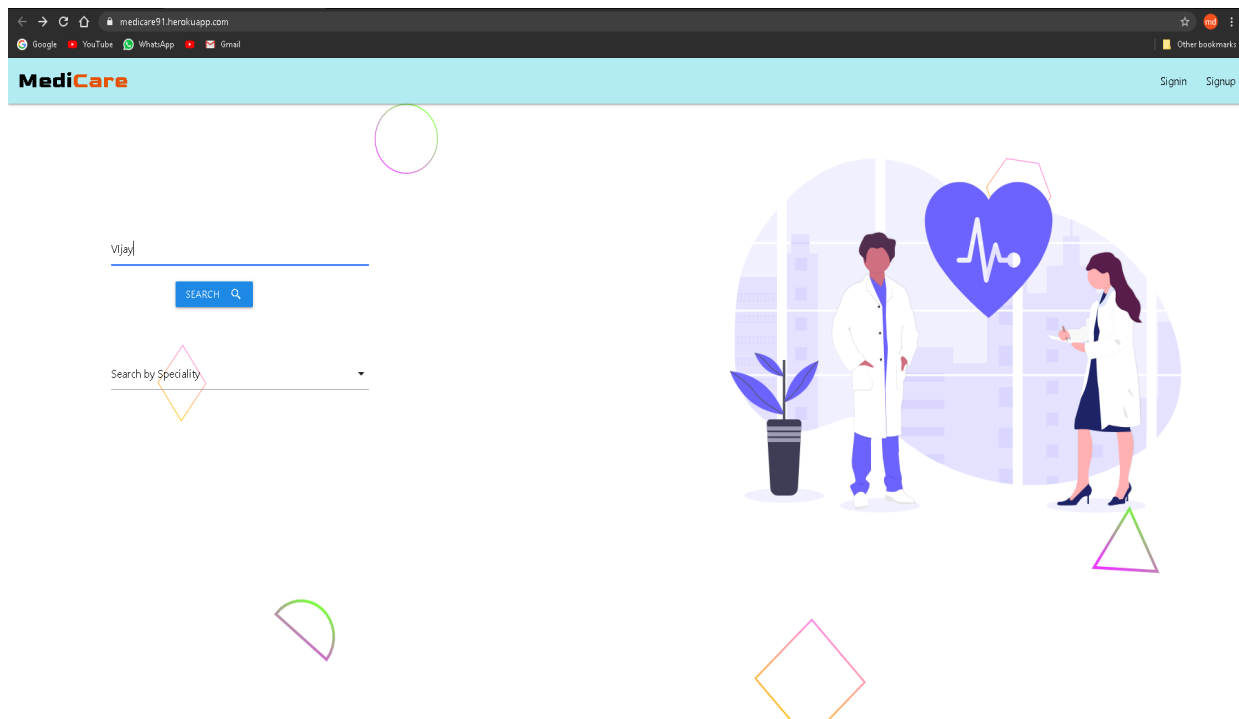
2.3 Interfaces:

1. **Administrator:**
   The admin is able to make the following actions:
   1. Show all patients' information.
   2. Show all doctors' information.
   3. Add, delete and doctor's account.
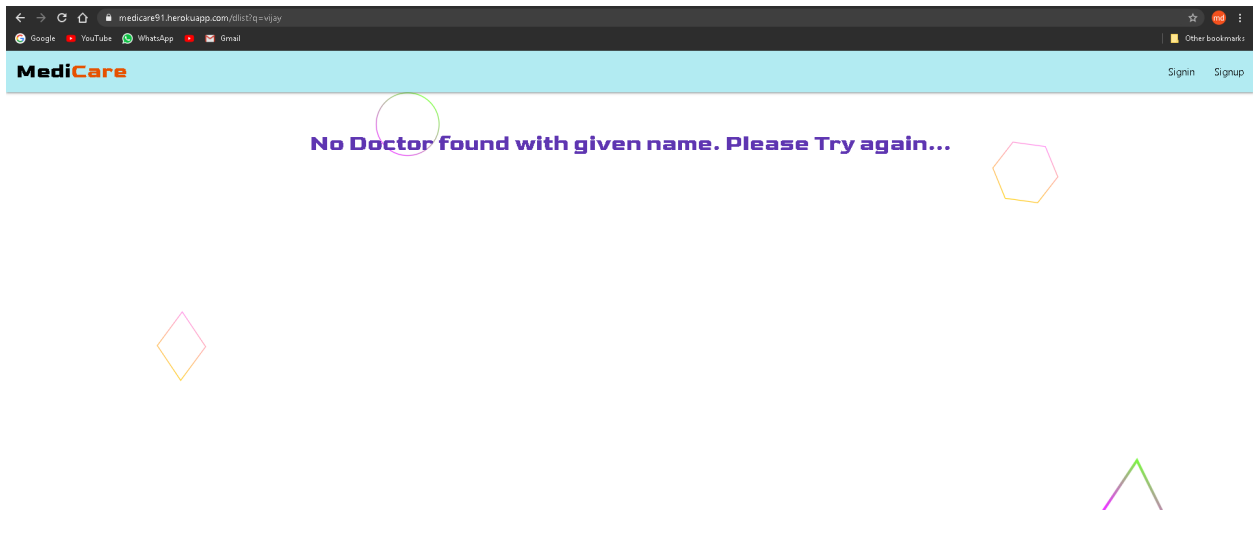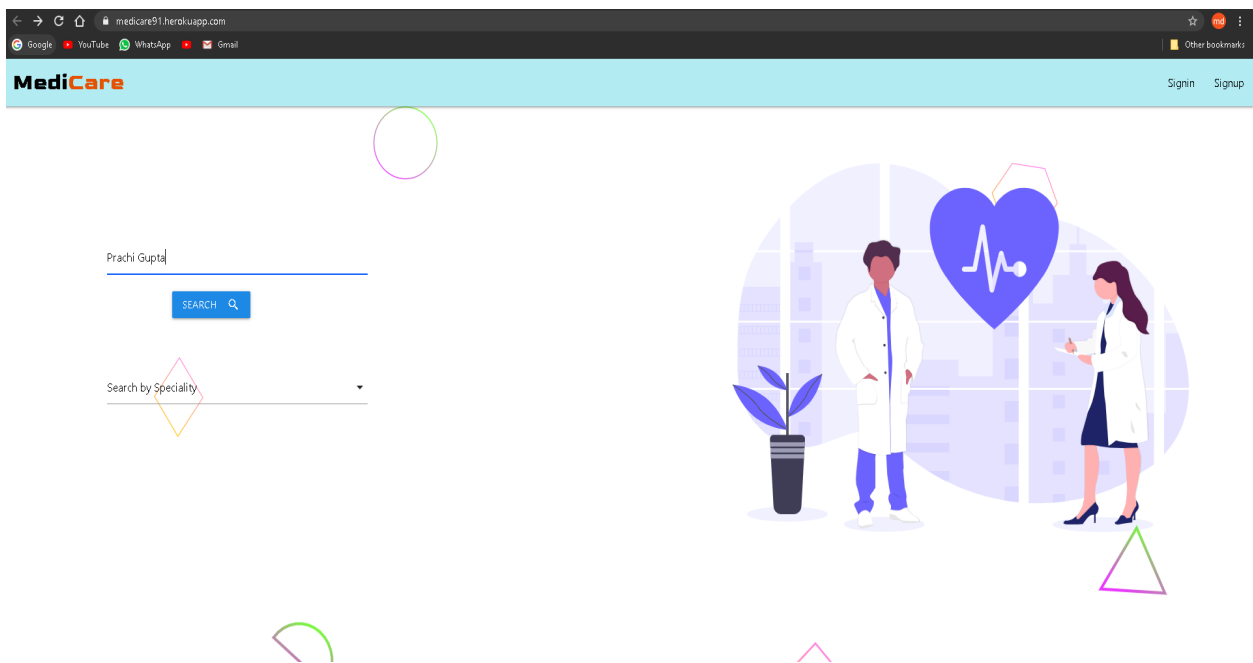   4. Add, delete and patient's carriers.

2. **Patients:**
   Search Doctor:
   A patient can search for a doctor by his/her name.

If the system didn't find a proper match as the name specified by the patient, they will be shown the following screen.

MediCare   Signin   Signup

No Doctor found with given name. Please Try again...

On providing the correct name of the doctor, the patient can move forward to book the appointment if required.

MediCare   Signin   Signup

Prachi Gupta

SEARCH 🔍

Search by Speciality   ▼

MediCare   Signin   Signup

Prachi Gupta   ratings: 4.8 ★

Speciality: Dentist

Consultant Fees: 500 INR

Availability: Fri to Sat

Availability Time : 10-12 AM and 4-6 PM

BOOK NOW ➤

Patients can also search the doctor by their speciality.

Search Doctors by Name

SEARCH 🔍

Search by Speciality

Dentist

Physician

Cardiologist

Pediatricians

Dermatologists

ENT (Head and Neck)

Gynecologist

Surgeon

List of doctors for a speciality will appear .
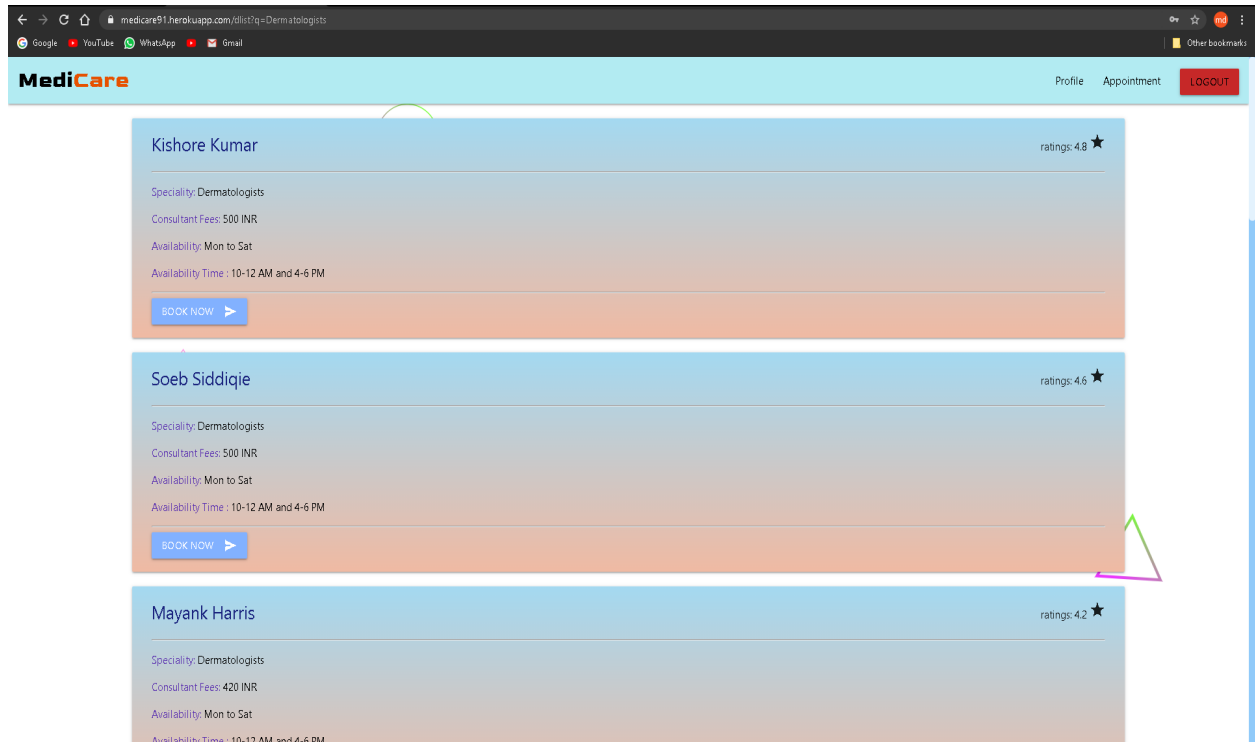
To book an appointment, the patient needs to register themselves, if not already done. The registration page is as shown.

MediCare

vijay

vijay@gmail.com

•••••

UPLOAD PIC   Optional

6302230785

8-1-398/PM/28,29 .PARAMOUNT HILLS,TOLICHOW

O+ve

Male

01-12-2020

SIGNUP

Patient SignIn

After successful registration, the patient can now sign in and book or manage their account.

The patient can now see his profile page containing information provided by him/her.

Name: Vijay
DOB: 01-12-2020
Gender: male
Blood Group: O+ve
Address: .PARAMOUNT HILLS
Mobile number: 6302230785
Email Id: vijay@gmail.com
BOOK APPOINTMENT
APPOINTMENT HISTORY

The patient can now book an appointment with the desired doctor.
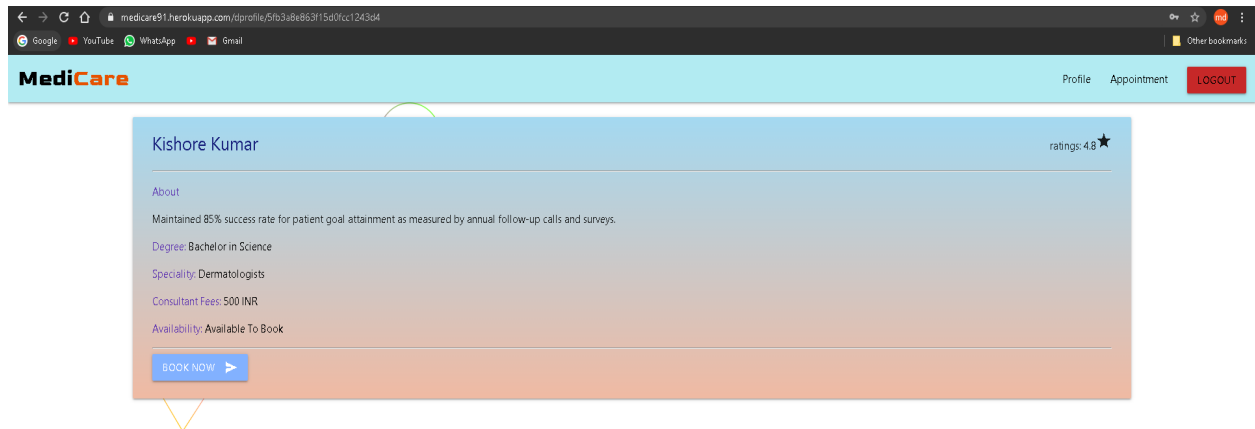
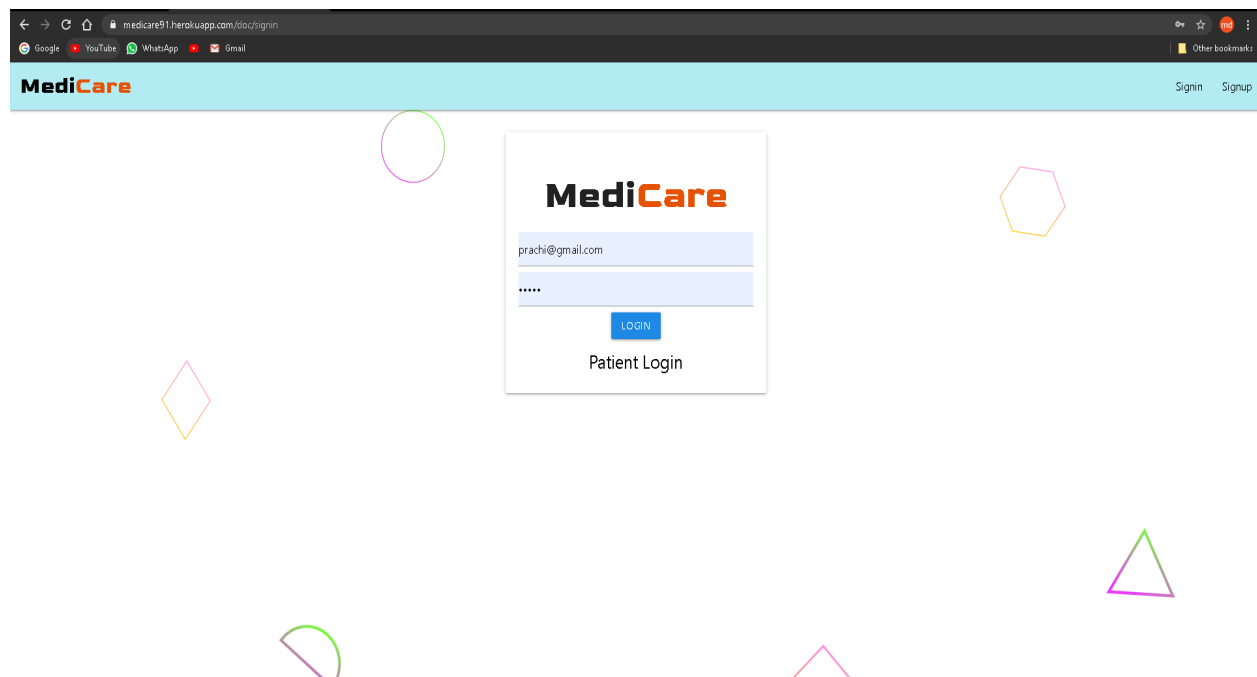To finalize the booking, the patient needs to complete the payments.
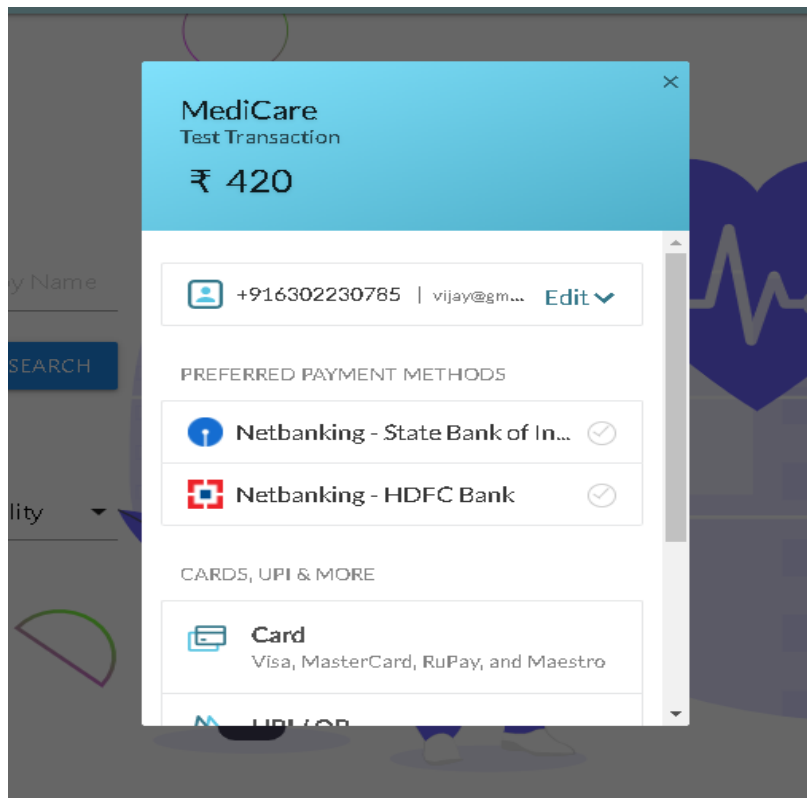
The patients can see their appointment history and go for a series of checkups .
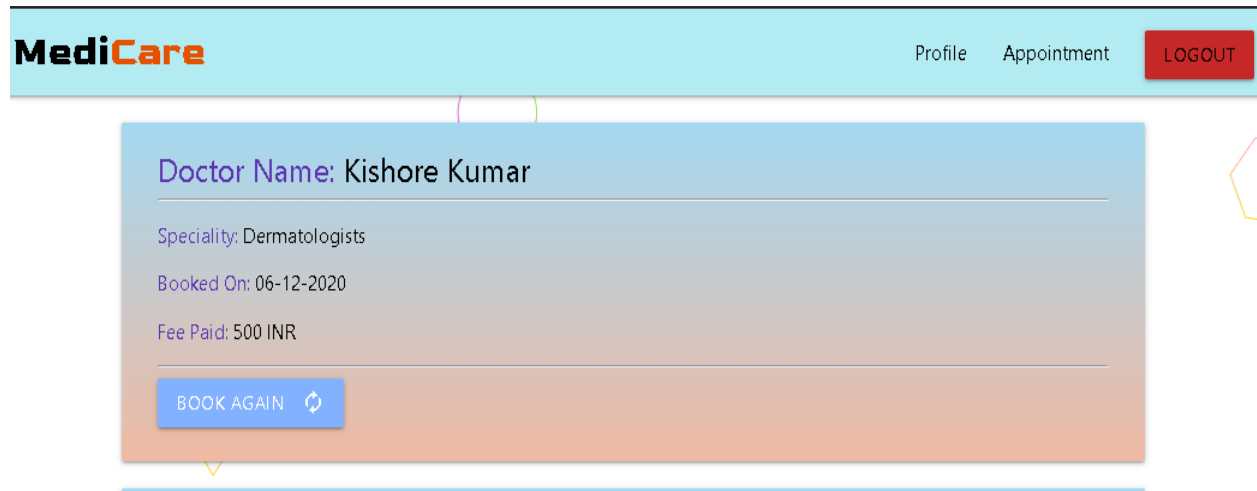
3.) Doctor :

Doctors can login with the portal to proceed for checkups.

Doctors can see their active or upcoming patients.

After check up, the doctor can upload a prescription according to which the patient can take his medicines from his nearby chemist shop.

If anyone runs some wrong link, we get the following error page.