Abstract: This online website helps the people to do the eye testing online, which is absolutely free of cost. Initially users have to register or login to this application before the test begins. This eye testing can detect your problems easily by asking few questions through related pictures and provide you with instant results that help you do self-analysis about your vision. User can able to view the details such as anatomy of an eye, eye conditions, visual problems, eye exercises and eye tips for healthy eyes. It also notify you in email with proper eye camp details whenever it is updated in the website. This website provide options to user to choose what type of colour vision test if he/wants to do. After test has been performed user can send his/her feedback by filling in the feedback form. Later Admin can view the user registered, test results performed by the users, and read the feedback sent by the user.

1. Introduction

1.1 About the project
This online website helps the people to do the eye testing online, which is absolutely free of cost. Initially users have to register or login to this application before the test begins. This eye testing can detect your problems easily by asking few questions through related pictures and provide you with instant results that help you do self-analysis about your vision. User can able to view the details such as anatomy of an eye, eye conditions, visual problems, eye exercises and eye tips for healthy eyes.

It also notify you in email with proper eye camp details whenever it is updated in the website. This website provide options to user to choose what type of colour vision test if he/wants to do. After test has been performed user can send his/her feedback by filling in the feedback form. Later Admin can view the user registered, test results performed by the users, and read the feedback sent by the user.

2. Analysis

System Analysis
System analysis describes about the analysis task performed for this project. The collection of notations, methodologies, and tools used to gather details and analyse a problem situation prior to information system design and implementation.

It is a process of collecting and interpreting facts, identifying the problems, and decomposition of a system into its components.

System analysis is conducted for the purpose of studying a system or its parts in order to identify its objectives. It is a problem solving technique that improves the system and ensures that all the components of the system work efficiently to accomplish their purpose. Analysis specifies what the system should do.

2.1 Functional requirements
A functional requirement document defines the functionality of a system or one of its subsystems. It also depends upon the type of software, expected users and the type of system where the software is used.

Functional user requirements may be high-level statements of what the system should do but in detail. There are three sub modules in this phase.

1) User module
2) Admin module
3) Eyetesting module

2.1.3 Hardware requirements
- Pentium 4 processor,
- 4GB RAM,
- 40 GB Hard disk

2.1.4 Software requirements
- Xampp server,
- Visual code++,
- MySql database

2.1.5 Modular design
An application is always divided into several sub systems that makes it easier for the development. The application that is structured into several sub systems makes it easy for the development and testing. The different sub systems are also known as Modules.

The system under consideration has been divided into several modules taking in consideration the above-mentioned criteria. The different modules are:

- Login
- Registration
- Services
- Eye Tests
- Admin

Login
The login module is the screen asking for the user's registered mail id to login to our website. An existing user can login providing their mail id and password that has been registered by that user earlier. If it is a new user, he can sign up and register.

Registration
In Register module the user must give his credentials necessary to login to the website. This module takes the mail id so that later it can send feedback either via mail id or our website.

Services
It consists of list of services which provided by this website
- Anatomy of an eye
• Vision problems
• Eye conditions
• Eye tests
• Eye tips
• Eye exercises

**Anatomy of an eye**
It displays the content subjected to anatomy of an eye.

**Vision problems**
It provides the basic vision problems with related video content and directs link to the individual pages for more information such as causes, treatments and effects.

**Eye conditions**
It lists the eye conditions like cataracts, floaters, dry eye which are provided with causes symptoms and treatments in detail.

**Eye tips**
It displays common tips to maintain our eyes healthily.

**Eye exercises**
It shows eye exercises which are helpful to get rid of future vision problems. It displays with some gif or pictures so that user can easily know the steps to do exercises.

**Eye tests**
This is the module which performs eye test and provide result and it also can be send to the user via mail if user clicks the send button. Basically it provides two tests
1) Colour vision deficiency test
2) E- chart test

**Colour vision deficiency test**
In this test user can be provided with option button to choose their type of colour vision deficiency test. i.e. Shapes, alphabets and Numbers. After choosing the option corresponding type of tests will be start to the user. It consists of some pictures which user have to either enter what the user can able to see or simply selects the choices provided by the test.

**E-chart test**
In this e chart test different orientations and sizes of alphabet ‘E’ will be continuously provided by the user. Users have to click the corresponding button from four sided button. At last it provides the user with results which are calculates with the actual values from the database. After the test completed.

---

**2.2 Data Flow Diagram (DFD)**

![Data Flow Diagram](image)

**2.3 UML diagrams**

![UML diagrams](image)

**2.4 Class diagram**

![Class diagram](image)
2.5 Sequence diagram

![Sequence diagram]

2.6 Entity Relationship diagram

3. Result

Thus the online website helps the people to do the eye testing online, which is absolutely free of cost. After test has been performed user can send his/her feedback by filling in the feedback form. Later Admin can view the user registered, test results performed by the users, and read the feedback send by the user.

References

Books

Web
[6] https://www.w3schools.com