

FELIX – MOOD ELEvation website





**FELIX - MOOD ELEVATION FULL STACK WEBSITE**

**A Project Work**

*Submitted in the partial fulfilment for the award of the degree of*

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**IN**

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##### ***Annexure-2***

**DECLARATION**

I, **‘Varnika Sharma’**, student of **‘Bachelor of Engineering in Computer Science with Specialization in Internet of Things’**, **session: 2020-21**, Department of Computer Science and Engineering, Apex Institute of Technology, Chandigarh University, Punjab, hereby declare that the work presented in this Project Work entitled **‘Felix – Mood Elevation Full Stack Website’** is the outcome of our own bona fide work and is correct to the best of our knowledge and this work has been undertaken taking care of Engineering Ethics. It contains no material previously published or written by another person nor material which has been accepted for the award of any other degree or diploma of the university or other institute of higher learning, except where due acknowledgement has been made in the text.

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**Date: 8th December 2020**

**Place: Chandigarh University**

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**Varnika Sharma**

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**Abstract**

The objective of this undertaking is to provide users with interesting stuff that they can do according to the frame of their mind. This paradigm helps an individual going through an annoying or hectic day or a cheerful day or feeling wasted out of boredom and so on, with several activities that can be done to rejoice them.

Our goal is achieved by using the MEAN stack technologies. The web application is created using the frontend UI framework, Angular CLI which uses other backend services like Node.js, Express.js and MongoDB to fetch and perform other CRUD operations on the stored data. Furthermore, a specific user can only perform authenticated operations specified in RESTful API allowed to them and cannot do alterations with the rest of the data.

A user can choose his/her desiring stuff like music, shows, movies, comedies, etc and get redirect to the final page. Moreover, a user rating and a review can also be posted respective to what he/she selected. A user can also share their thoughts with the entire world and even post it anonymously if required. Thus, providing a user-friendly and pleasing experience to the user.

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1. **INTRODUCTION**
   1. **Problem Definition**

This chapter will cover the overview of a website that will settle your emotion no matter what you feel. A human mood swing is an extreme or in a rapid change mode. Such emotions can play a positive part in promoting problem-solving and in producing flexible forward planning. However, when emotions are so strong that they are disruptive, they may be the main part of a bipolar disorder.

The mood can be normal and are only an indicator of underlying disease when feelings become excessive, all-consuming and interfere with daily living. Getting regular exercise and adequate sleep may help reduce mood swings. Avoiding or limiting alcohol consumption may also help but the website presented is a more promising method.

* 1. **Project Overview/Specification**

We propose a paradigm where visiting a webpage can help elevate a person’s mood when they feel especially debilitated. The home page of the website displays some motivational quotes at the top along with a slide displaying the most trending movie, tv-series and playlist.

Furthermore, there are various moods to choose from and selecting any one of the moods will lead to the next page which will display the activities or entertainment choices; here three standard courses of action are present accompanied by one unique activity for each mood.

In addition to this, there is also a section of the website where a user who has logged in can create a post for everyone to see. But this is not the end of it, a user can also create a personal diary on the webpage that only the user can access and edit, it will be completely confidential.

* 1. **Software Specification**

Table 1.3: Software Specification

|  |  |  |
| --- | --- | --- |
| **S. No.** | **Name** | **Specification** |
| 1. | Visual Studio Code | **Visual Studio Code** is a free source-code editor made by Microsoft for Windows, Linux and macOS. Features include support for debugging, syntax highlighting, intelligent code completion, snippets, code refactoring, and embedded Git. |
| 2. | Bootstrap | **Bootstrap** is a free and open-source CSS framework directed at responsive, mobile-first front-end web development. It contains CSS- and JavaScript-based design templates for typography, forms, buttons, navigation, and other interface components. |
| 3. | 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. |
| 4. | Angular cli | You use the **Angular** **CLI** to create projects, generate application and library code, and perform a variety of ongoing development tasks such as testing, bundling, and deployment. |
| 5. | Node.js | **Node.js** is an open-source, cross-platform, back-end, JavaScript runtime environment that executes JavaScript code outside a web browser. |
| 6. | Express.js | **Express.js**, or simply Express, is a back-end web application framework for Node.js, released as free and open-source software under the MIT License. It is designed for building web applications and APIs. It has been called the de facto standard server framework for Node.js. |
| 7. | npm | **npm** is a package manager for the JavaScript programming language. npm, Inc. is a subsidiary of GitHub, an American multinational corporation that provides hosting for software development and version control with the usage of Git. It is the default package manager for the JavaScript runtime environment Node.js. |
| 8. | Git and GitHub | **Git** is a version control system that lets you manage and keep track of your source code history. **GitHub** is a cloud-based hosting service that lets you manage Git repositories. If you have open-source projects that use Git, then GitHub is designed to help you better manage them. |

1. **LITERATURE REVIEW**
   1. **Existing System**

There are some websites that are accustomed to alleviating mood after a stressful day. While they mainly focus on displaying videos of animals and a little bit of music, our website explores various domains to relieve anxiety. A website, Huffington Post Good News Section has also taken on the initiative to post positive news that is usually overshadowed by more melodramatic posts.

Furthermore, websites like Animal Planet Kitten Cam displays a live feed of kittens playing around, along with Find the Invisible Cow, where just as the name implies you find the elusive, invisible cow to win the game. The list goes on with making a person feel better by watching puppies wearing red goloshes and kittens snuggling with hamsters with Cute Overload.

Overall systems existing currently include Spotify, a music provider that has taken on the initiative to provide playlists according to various moods. Alongside Spotify, the Audio tree is a self-discovery platform that succours in watching live-streamed concerts, documentaries presenting artist stories, accompanied by traditional studio sessions.

Social media platforms like Instagram, Facebook, Twitter, etc, enables its users to post stuff on their platform so that people can express and share their views and thoughts with the online world.

* 1. **Proposed System**

We propose a paradigm to help any individual who suffered from a hectic and annoying day to anyone who is depressed, to alleviate their mood by accessing just a website and finding interesting sources to vent out their anger. Furthermore, we do not plan to stop there, the website also welcomes someone who is feeling cheerful or people who are bored out of their mind. It is also accustomed to entertaining people feeling romantic and the list goes on.

The website offers customized options for each emotion, along with three standard alternatives to watch TV Series, Movies or listen to Playlists we tailored for each mood. All the activities and playlists were fashioned to soothe the pain of individuals and elevate their mood. In addition to these three constant categories, a fourth category is also included which are distinct for each mood i.e. watching memes, funny videos, stand-up comedies, motivational videos or doing exercises, playing video games, tons of other stuff.

The website also allows registered users to share their perspective, their vision with other users in form of an image, a video or just a text. Furthermore, it also enables a user to write and store their diary/journal on our application which would only be visible to the authors of their diary.

1. **PROBLEM FORMULATION**

The seeds of emotions are implanted in each individual and are inevitable. Hence, instead of avoiding agonizing emotions and bottling them up, people could just embrace the anxiety and anger, and will consequently be able to face them head-on. Our website, Felix, provides comfort to those in need of it.

The objective of this project is to provide aid to those who are lonely and too timid to ask for what they want or share their sentiments with others. Often, people struggle with conflicting feelings and do not understand how or where to articulate them. Thus, providing a platform to accommodate and entertain various moods can help in pacifying their jitters in a more tranquil manner.

Taking their pick out of an assorted lot of Exercises, Music, TV Series, Funny Videos, Movies, Games, etc., will assist in taking the edge off the pain, not to mention will undertake a content person and turn the person euphoric. The website even pays heed to the feeling of fondness and propounds course of action for the same.

1. **RESEARCH OBJECTIVES**

Through the proposed system there is a way out for someone who feels depressed and is too much of an introvert to speak his/her mind. It is a widely known fact that everyone feels gloomy at some point of the day, week, or a month, and the mind needs to reboot to relieve the stress of the soul.

The website has six selection of moods in the preliminary stage, that comprehends Annoyed, Romantic, Depressed, Bored, Anxious, and Cheerful, which can be selected by the end-user on the home page.

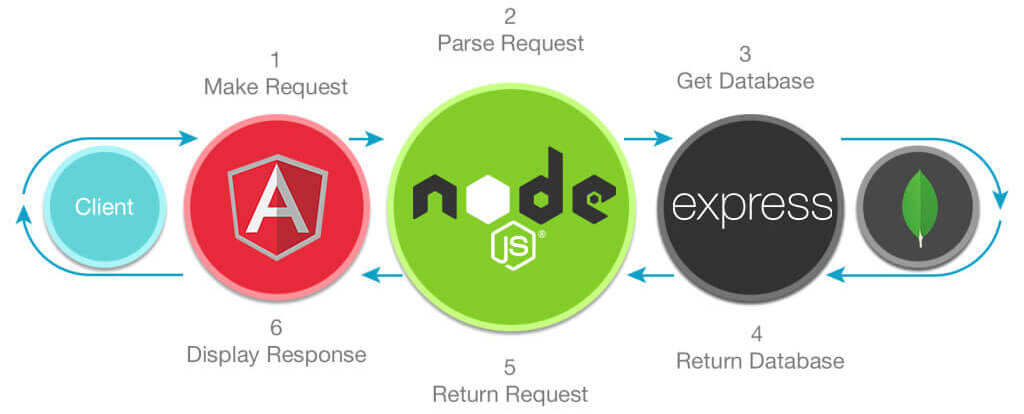
It is incorporating languages like HTML5, CSS3, JavaScript, Angular JavaScript, along with JSON format for database. With constantly performing CRUD operation on our web application, it needs to be dynamic and to enable it modern front-end frameworks like Angular are used and the back-end server is established with the help of Node.js and Express.js. For storing all other data MongoDB is connected with the server so that it could communicate with the end-users and perform requested CRUD operations.

1. **METHODOLOGY**

The MEAN stack is a popular web development stack made up of MongoDB, Express, Angular, and Node.js. MEAN has gained popularity because it allows developers to program in JavaScript on both the client and the server. The MEAN stack enables a perfect harmony of JavaScript Object Notation (JSON) development: MongoDB stores data in a JSON-like format, Express and Node.js facilitate easy JSON query creation, and Angular allows the client to seamlessly send and receive JSON documents.

MEAN is generally used to create browser-based web applications because Angular (client-side) and Express (server-side) are both frameworks for web apps. Another compelling use case for MEAN is the development of RESTful API servers. Creating RESTful API servers has become an increasingly important and common development task, as applications increasingly need to gracefully support a variety of end-user devices, such as mobile phones and tablets. This tutorial will demonstrate how to use the MEAN stack to rapidly create a RESTful API server.

Angular, a client-side framework, is not a necessary component for creating an API server. You could also write an Android or iOS application that runs on top of the REST API. We include Angular in this tutorial to demonstrate how it allows us to quickly create a web application that runs on top of the API server.



* 1. **Backend Development**
     1. ***Setting up the Database***

A database is created in a JSON format or using required queries which specifies what all details about users, music, movies, tv-shows, favourites etc should be stored in the MongoDB, which can be fetched and accessed by a normal user or an administrator via RESTful API server and web applications.

* + 1. ***Connecting MongoDB and the Node.js app server using Mongoose.***

Data inside our MongoDB must connect with the Node.js server with the assistance of Mongoose which further uses RESTful APIs to perform various operation on the database. The MongoDB URL is stored as an environment variable rather than defining it inside the code using ‘dotenv’ module.

* + 1. ***Creating a RESTful API server with Node.js and Express.***

As our first step in creating the API, we define the endpoints (or data) we want to expose. Our app will allow users to perform CRUD operations on the stored data. Express helps in creating a server while Node.js in specifying the endpoints like GET (fetching the data), PUT (updating the data), POST (creating new data) and DELETE (deleting the data) in our MongoDB. Furthermore, it assists in handling authorization mechanisms.

* 1. **Frontend Development**
     1. ***UI/UX Designing***

User Interface and User Experience is one of the most important layers of Web development. Thus, it is essential to design a UI which is user friendly and gives the best experience to the users. Implementing the UI in a separate layer is still needed when we want to support multiple platforms (e.g., a web app and a mobile app). But, since it is just a matter of inheriting a layer, that can come later in the development roadmap.

* + 1. ***Creating components in Angular Project structure.***

After figuring out the best UI/UX design for the web application, all the components are implemented on the front-end Angular framework which will be displayed to the end-users for accessing the data and performing various operations on them.

* + 1. ***Connecting Node.js server with Angular Project.***

The final step is to connect our Node.js server with the Angular project by whitelisting the address on which Angular framework is running in CORs defined in Node.js server through which the specified user can perform its authenticated operations via the endpoints on the data stored in MongoDB.

1. **RESULTS AND DISCUSSIONS**

Through our website, we can provide recommendations from our database to the end-user through well-defined REST APIs and signed-in users can even share their thoughts by uploading a media on the server. Our application assists a user to elevate their mood by displaying various options available to them and can be done to achieve it. To make our recommendations more efficient we can add machine learning to our web application and numerous features can be added in the application to make the user experience more relaxing.

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