INNOVATIVE ASSIGNMENT

SUBJECT: FULL STACK WEB DEVELOPMENT

NAME: DEV PATEL, JAIMIN PATEL ROLL NO: 22BCE242,22BCE248

TOPIC: EXPENSE MANAGER

INTRODUCTION:-

Are you tired of keeping track of your daily expenses on scattered pieces of paper or juggling through numerous apps to manage your finances? Say hello to my innovative Expense Manager! It's a user-friendly web application designed to simplify the process of tracking and managing your daily expenses effortlessly.					
With my Expense Manager, you can easily record your expenses date-wise, making it convenient to review and analyze your spending habits over time.					
Whether it's a cup of coffee, grocery shopping, or a night out with friends, simply input the expense along with the date, and the app will take care of the rest.					
But that's not all! One of the standout features of my Expense Manager is its ability to calculate your monthly expenses and can send it to anyone by converting into pdf which					
contains the complete tabular format which contains date, description, quantity of product, amount per quantity, and total amount.					

Key Features:-

- **1)Easy Expense Tracking**: Record your expenses effortlessly, organized by date for easy reference.
- **2)Monthly Expense Calculation**: Get a clear picture of your monthly spending habits at a glance.
- 3)Customizable Categories: Categorize your expenses to better understand where your money is going.
- **4)Data Analysis**: Gain insights into your spending patterns and identify areas where you can save.
- **5)easy graph analysis:** easy to understanding daily spendings by graph analysis

APPLICATION:-

1)Parental Communication Tool:

Boys living in hostels often rely on financial support from their parents. Your Expense Manager can serve as a communication tool between the boys and their parents. They can easily share monthly expense reports with their parents, providing a transparent view of how the money is being spent.

2) Budget Planning for Allowance:

Hostel life comes with its own set of expenses, including food, laundry, stationery, etc. Your Expense Manager allows these boys to plan their monthly budget effectively. They can set allowances for different categories of expenses and track their spending to ensure they stay within budget.

3) Expense Sharing Among Roommates:

Often, hostel mates share common expenses such as groceries, utilities, or communal items. Your Expense Manager can facilitate the tracking and splitting of these shared expenses among roommates. It promotes accountability and ensures fair distribution of costs.

4) Financial Independence and Responsibility:

Managing expenses independently fosters a sense of financial responsibility and independence among boys living in hostels. Your Expense Manager empowers them to track their spending, analyze their habits, and make informed financial decisions.

☐ By catering to the specific needs and challenges faced by boys living in hostels, your Expense Manager becomes an invaluable tool for promoting financial literacy, accountability, and smart money management habits.

CONCEPT OR TOOLS WHICH I USE FOR MAKING:-

DATABASE SYSTEM: MONGODB ATLAS
 LANGUAGES: HTML, CSS ,JAVASCRIPT
 ONRENDER: FOR DEPLOYMENT OF SITE

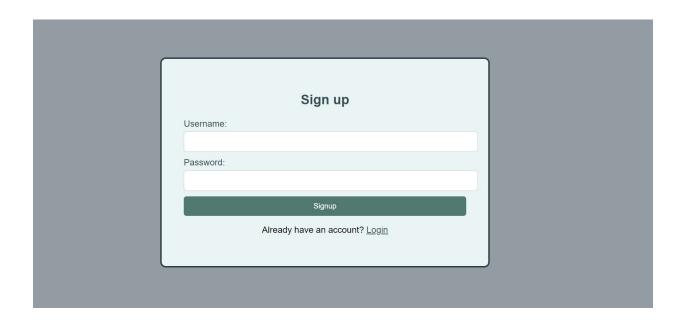
1) login page:-

first we have to sign up with username and password this data will be store in mongodb atlas database,when user want to login it we have to enter username &password correct then username && password authenticate with database and if it is right then we reach to the home page and if wrong then it throw error invalid password or username

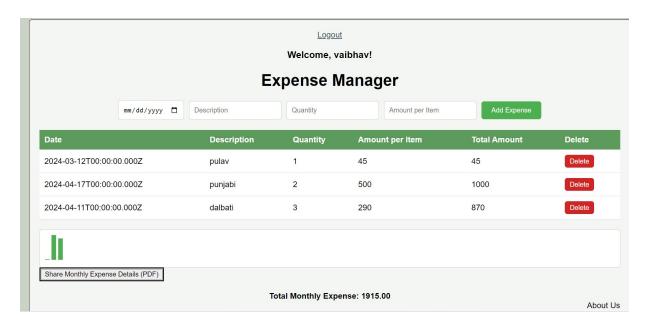
	Login	
Username:		
Password:		
	Login	
Don't have an account?		

2)sign up

now if user enter to the first time then we have to do signup with username &password ,if the username already exist then it can't sign up, after sucessful signup we will be redirect to login page then we have to login with created user&& password.

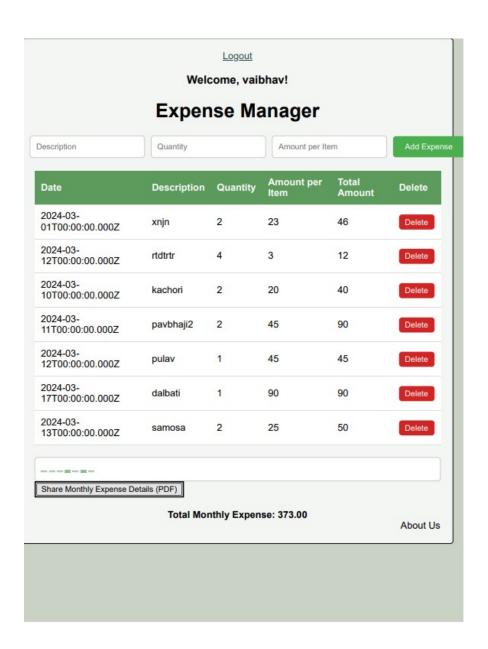


3)home page:-



After login successfully website redirect us to the home page in which it helps us to manage our daily expenses, here we take input of date, description, quantity, amount per item this data will be stored in a database. On the home page we can see the expense table in which details of expenses are available, here we can also delete the data from table. we can easily analyse our daily expenses with the help of graph and also can share our monthly expense details to others in pdf form. At the end we can see total expenses.

4)converted data into pdf:-



5) backend database & database connection with frontend:-

now by using mongodb atlas database we can easily handle our user database and expenses data, we store the user data and according to that data we also store their expense data in mongodb atlas, we use body parserer to retrieve data when particular user login then he can see previous saved data.

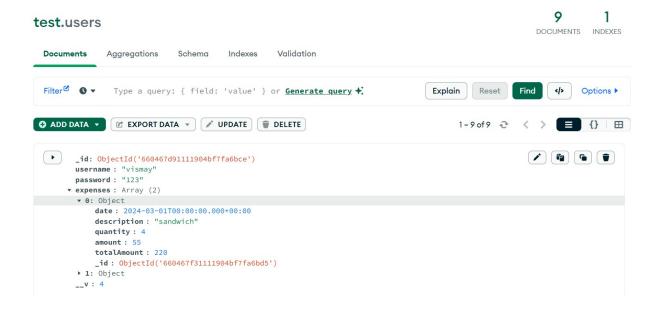
Connect to MongoDB:-

```
mongoose.connect('mongodb+srv://dev2004patel:huZeZAJtgXhhNyIZ@cluster0.grpntfd.mo
ngodb.net/?retryWrites=true&w=majority&appName=Cluster0', { useNewUrlParser: true,
useUnifiedTopology: true })
   .then(() => console.log('MongoDB connected'))
   .catch(err => console.error('MongoDB connection error:', err));
```

Define User schema:-

```
const userSchema = new mongoose.Schema({
   username: String,
   password: String,
   expenses: [{
      date: Date,
      description: String,
      quantity: Number,
      amount: Number,
      totalAmount: Number
   }]
});

// Create User model
const User = mongoose.model('User', userSchema);
```



6) about us page:-

