Test Name: Monthly Test

Module Name:- Back End
Test Duration:- 3 hrs

Batch Name:- JRD Tata & Bhabha Batch
Max Marks:- 100

Instruction :

1. Plagiarism is **not allowed**, if found plagiarized at any point during the course (even for previous submissions) then it will be a breach of ISA.
2. Passing marks of the test (Min 40% of max marks).
3. Submission links (GitHub) should be submitted after the completion of the test into the dashboard.
4. For retest – Passing all the modules in the retest is compulsory, if a student fails/not attending the test/not attended live evaluation then students have to take the batch transfer (Max Batch transfers given are 2)

The task is to create a personal expense tracker website. Here the user will create an account, and then will be able to add/manage his/her personal expenses in the application. This overall question is split between BE and FE (both 100 marks respectively). The BE should handle user authentication, adding expenses in the DB, etc. The FE would consume the API created in the BE section. Please go through each section (BE & FE) to understand the requirements better.

General Notes:

- Please read the questions properly and understand them well before attempting.
- Apply appropriate validations wherever necessary.

- Protect your API URLs from public access wherever necessary.
- You can create additional APIs as per your need.
- Use best approaches that you learnt wherever possible. Try to write clean, readable and modular code as much as possible.

1. Create a REST API for a User schema having fields like name, email Id, password, profilePicture (add additional fields if you like). Using this schema create a JWT authentication system all around. a. User should be able to sign up, login etc. b. User should be able to upload his/her profile picture c. You must use JWT authentication system to login/logout a user. d. You must hash the password. You should NOT store the user password in plain string in the Database
[30 Marks]

2. Create an REST API for an Expenses schema having fields like, name, description, amount, tags (this will be an array of string, ex. #office), createdBy (this will store the value of userid who is adding/creating the expense record), and createdAt (this is the date when the expense was added/created by the user). a. A user can only add/edit and delete his expense which he/she has created. b. The CRUD operations must be protected. For ex. A GET request for all the expenses must only return for the logged in user. c. You can add additional routes for building specific APIs like getting all expenses for a specific month, tags etc, if needed as per the functionality required in the FE section
[40 marks]

3. The user should also be able to get all his/her expenses in a CSV file. Create a route which will accept parameters, like month/year and sends the generated CSV file based on that parameters. For ex, all expenses in the month of July 21 to November 21, or for the whole specific year like 2021, or for a single specific month like January 2021.
[30 marks]