SDE Hiring Assignment

Problem:
Backend: Generate premium a health insurance plan for the selected sum insured, age, city tier, and tenure for a user.
Frontend: User input based on criteria mentioned below. Show the premium that was determined at the backend. Front-end add-to-cart feature should point to the checkout page, which verifies the purchase of the plan.

Data Provided: Raw CSV file with a premium of individual age, and rate card logic for all the member combinations.

Attached csv: Rate-Card-Data

Rate Card Logic:

Given premium data of individual members of age 0-90 member.

Create premium in the following combination based on the below logic:

1a - Single Individual

2a - Two Individual

1a, 1c - Single Individual, Single Child

1a, 2c 1a, 3c 1a,4c 2a,1c 2a,2c 2a,3c 2a,4c

Example of rate for a family of three (2a,1c) of age 46, 35, 10 from a tier 1 city for the cover of 5,00,000 and tenure 1yr

	Adult 1	**Adult 2**	**Children 1**
Base Rate	14676	9441	7073
Floater Discount	0%	50%	50%
Discounted Rate	14676	4723.5	3536.5
Total	22936		

Note:

- floater discount is only applicable for more than one insured member and not to a single individual 1a cases.
- in cases apart from 1a where a floater discount is given, it's not applicable to the highest member age but the rest of the member age gets a 50% discount as shown above.

Expected Output: The user should be able to input the age of all the members it wants to get insured, select the Sum Insured (300000, 400000, 500000), city tier (tier-1, tier-2), and the tenure of insurance (1 yr 2yr) to get expected premium.

Tech stack required: Flask framework, MongoDB on the backend and React Frontend

Deliverables

- The GitHub repository link of the backend and frontend project
- A document explaining
  - All the APIs and URLs with sample input and output.
  - Installation guide of both the frontend and backend.
- Web URL of the hosted project