Interior Design and Home decor

DB - PostGreSQL
Backend - Python
Front end - React/HTML
App for Company's usage
Necessity of the db (CRUD operations)
LINKS:
Min-Max: https://slideplayer.com/slide/5337019/

Doubts:

1. Web based or not

The company in consideration is Imagine Walls - an interior design and home decor company. Our project is aimed at building a software product for this company to manage its resources, keep track of its projects, get customer reviews, etc.

Work done by the company:
The company takes in projects from customers, that include demands to furnish/decorate particular rooms of their houses, such as bedroom, bathroom, kitchen etc. The company keeps track of the site where the project is located.
The company has tie-ups with furniture companies, to help get products at low rates. The company keeps track of a list of furniture available and their costs.
The company then provides a few ready-made designs to the customers according to the room that needs to be decorated. These ready-made designs include room-specific furniture. These furniture come from the list of available furniture provided above.
The customer can also choose to create their own custom design. They can also choose furniture from the list above.
The company keeps track of the employees. The employee has a designation, such as designer, manager etc. The company also has a list of contractors for work such as labour, painting, plumbing etc. These contractors do not work for the company per se, but the company hires them for projects. Each project is assigned a project manager, designers, contractors etc.
Finally, the customer can give reviews for the project.

Operations:
Read:

1. List out available project managers who can be assigned projects(like human resources etc) - db of employees and their current projects
2. List out all booked dates and respective events - common db of all events
    I. Date wise
    II. Event-specific filtering
    III. Any event that is already over - bottom of table
    IV. Highlight upcoming events
    V. Employee-wise filtering/event-manager-wise filtering
3. For any given time, based on bookings, list out amount of income and expenditure
    I. If the profit margin is not favourable, quote the new prices to customer

4. List out payment details and buffer amount, dues and advances.
    I. Calculate amt to be returned to customer based on cancellation date
5. List out employee details.
6. List of companies we have a tie up with & also record each of their pricing plans.
7. List of packages for customers to choose from.

Write:

1. **Form to receive all details of an event**
2. If any new employee joins, list them.

Update:

1. Ability to make changes to any of the entered records.
2. Based on a number of projects worked on, give an increment.

Delete:

1. Delete any entry from table of events
2. Delete any entry from the table of employees.

Tables needed:

1. Projects(Cost, {Site, Project managers, painters, carpenter, elec}:foreign key)
2. Project Design(ProjectID,Design,Room)
3. Site details (size of each room, direction, image)
4. Employees (Designers, https://www.architecturaldigest.com/story/interior-design-jobs-guide
5. Company tie ups for furniture
6. Contractors
7. Ready made designs & Custom designs
8. List of Rooms
9. List of types of products(sofa, oven, bath tub)
10. Furnitures (room: Foreign key, type: Foreign key)
11. Payment dues and advances
12. Customer feedback & rating

Operations

1. Projects(Cost, {Site, Project managers, painters, carpenter, elec}:foreign key)
    Overview of all active projects
    Attributes
    - ProjectID PK
    - Site FK

- Project manager FK
- Designers FK (list) (Sn and jr)
- Contractors FK (list)
- Start date
- Estimated end date
- CustomerID Secondary Key
- RoomID (List of rooms belonging to the project(house))

Operations

2. *Room(ProjectID,DesignID)*
   A table with entries containing all the room-specific designs for all projects
   Attributes
   - *ProjectID FK*
   - *DesignID (Design selected for a specific room in the project with ProjectID) FK*
   - *RoomName*
   - *RoomID PK*
   - *ProductID (List of products used for a design) - not to be included????*
3. Site details (size of each room, direction, image)
   A table that gives the details of the site where the project is going on
   Attributes
   - Site ID PK
   - Address -> (Flat/House no, Street, City, State, Pin-code) Composite
   - Site size -> (Length, Breadth) Composite
4. Employees: Ref link
   List of employees such as project managers, senior designers
   Attributes
   - EmployeeID
   - Designation {Project manager, Sr. Designer, Jr. Designer, Executives}
   - Salary
   - DOB
   - Age derived
   - Join date
   - Phone number
   - EmailID
   - EmpAddress
5. Company tie ups for furniture
   List of companies from whom we buy furnitures, tiles etc
   Attributes
   - ProductID } PK
   - CompanyID }
   - Company Name
   - Phone
   - Email
   - Address
6. Contractors

List of people we hand out the contracts to, like electricians, plumbing
Attributes

- ContractorID PK
- ProjectID FK
- Name
- Type of work {electrician, flooring installer, painter, carpenter, plumber}
- Phone
- Email

7. Design
   List of some custom designs for each room as well as user-required designs
   Attributes
   - DesignID PK
   - Size (small,med,large)
   - RoomName (bedroom, bathroom, kitchen, living room, dining room)
   - ProductID FK (list of furnitures)
   - Design cost
8. Products (room: Foreign key, type: Foreign key)
   List of each furniture along with the company we get it from
   Attributes
   - ProductID PK
   - TypeID FK
   - Type name FK *******
   - Description
   - RoomName FK (from table 7) ******
   - CompanyID FK
   - Cost
9. Payment dues and advances
   List of payment dues
   Attributes
   - ProjectID FK
   - Cost Price
   - Selling Price
   - Customer ID FK ***
   - Advance paid
   - Remnant fee Derived attribute
   - Profit

10. Customer feedback & rating ***(1,1) or (1,N)
    Attributes
    - CustomerID FK (from table 1)
    - Feedback (+ve,-ve)
    - ProjectID FK
    - ProjectID,CustomerID PK
    - Date
    - Rating

11. Room (Weak Entity)

- *Design ID FK*
- *Project ID FK*
- *Room Name*
- *Room size*

12. Customer

- CustomerID PK
- PhNo
- Customer name
- Email ID
- Address

- Cardinality Min max
- Weak Entity/Regular (req FK)
- Relationship type
- Key attr
- Multivalued double oval
- Composite--------> Address
- Derived --->DOB//age dotted oval