Project Flow

1. **User Registration and Authentication:**
   - Users will register with their details.
   - Authentication mechanisms ensure secure access.
2. **Dashboard:**
   - Overview of key e-commerce metrics.
   - Quick access to customer data and recent interactions.
3. **Customer Profile Management:**
   - Ability to create, edit, and delete customer profiles.
   - Capture essential customer information.
4. **Order Tracking:**
   - Integration with e-commerce platform for real-time order tracking.
   - Display order history and status.
5. **Communication Module:**
   - Email and messaging features for seamless communication.
   - Automated responses and notifications.
6. **Task Management:**
   - Create tasks related to customer interactions.
   - Assign tasks to team members.
7. **Analytics and Reporting:**
   - Generate reports on customer interactions, sales, and trends.
   - Visualize data to derive actionable insights.

Schema Builders

Database Schema:

Users Table:

- UserID (Primary Key)
- Username
- Password (Hashed)
- Email
- Role (Admin, User)

Customers Table:

- CustomerID (Primary Key)

- FirstName
- LastName
- Email
- Phone
- Address

Orders Table:

- OrderID (Primary Key)
- CustomerID (Foreign Key)
- ProductID (Foreign Key)
- OrderDate
- Status (Pending, Shipped, Delivered)

Tasks Table:

- TaskID (Primary Key)
- AssignedTo (UserID - Foreign Key)
- TaskDescription
- Deadline
- Status (Open, In Progress, Completed)

Project Tools

1. **Programming Language:**
   - Backend: Python (Django framework)
   - Frontend: HTML, CSS, JavaScript (React)
2. **Database:**
   - PostgreSQL for relational data storage.
3. **Authentication:**
   - JWT (JSON Web Tokens) for secure user authentication.
4. **Version Control:**
   - Git for source code management.
5. **API Integration:**
   - Integrate with e-commerce platform APIs for order tracking.
6. **Communication:**
   - SMTP for email communication.
   - WebSocket for real-time messaging.
7. **Analytics and Reporting:**
   - Matplotlib and Seaborn for data visualization.

- Django REST framework for API development