Aim: To construct Activity Diagram representing behavioural view of the system.


Theory:

Food-Safety-Portal

To provide an application which allows residents and visitors of a city to find out more about food related aspects about the city. Aspects include information about restaurants and market certifications and what to look for local diets and/or delicacies, or even a restaurant guide.

Users of the System:
      1. City residents
      2. Visitors
      3. City employees

Diagram: 1
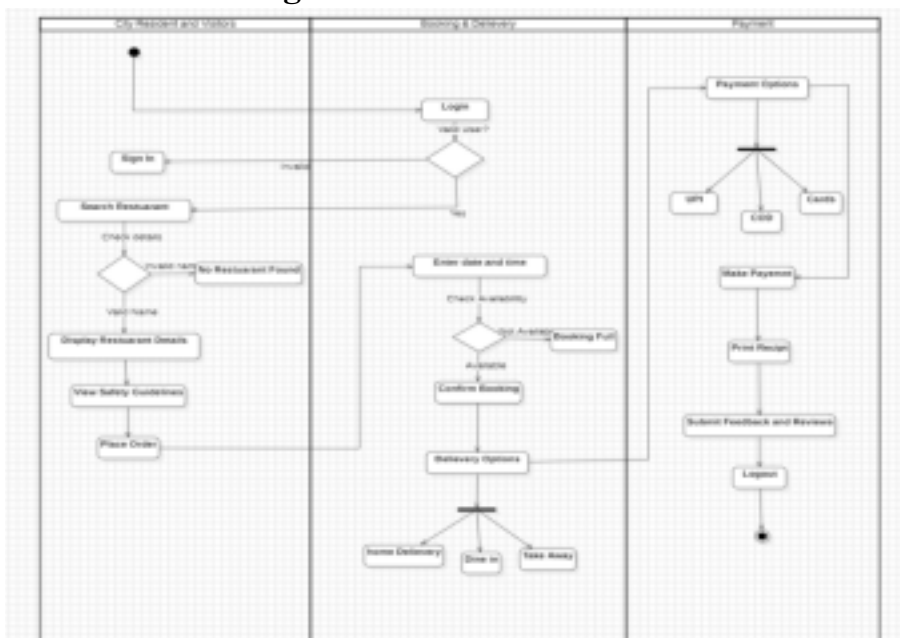
The application's workflow is visualized through swimlanes, categorizing tasks based on the entities responsible for their execution. Leveraging the concepts of forking and joining, where multiple factors contribute to a unified output, the process unfolds seamlessly:

User Registration and Login:
City residents or visitors initiate their journey by registering and logging into the application. A

straightforward login option is available for users who are already registered, streamlining the authentication process.

Restaurant Search Options:

Users are empowered with two distinct methods for restaurant exploration:

a. Direct Access through Safety Guidelines:
   ● Users can swiftly access restaurants aligned with safety guidelines.

b. Application of Filters:
   ● Users have the flexibility to apply filters based on diverse attributes such as Food Category, Hygiene, Feedback, and Rating, refining their search criteria.
   ● User Profile and Interaction:
      ● Users can seamlessly manage their profiles, provide valuable feedback, make account modifications, and engage in various interactions tailored to enhance their overall experience.

Filter Application:
To further enrich the restaurant selection process, users can apply filters based on their preferences, ensuring a personalized and refined search outcome.

Payment Options:
Upon confirming their food selection, users proceed to the payment stage, where they can choose from a variety of options, including Cash On Delivery, UPI, and Cards, offering a tailored and convenient payment experience.

Delivery Options:
Users are granted the freedom to choose from a spectrum of delivery options such as Dine-in, Takeaway, or Home Delivery. Additionally, they can set a default address or add a new one to enhance the delivery experience.

Feedback after Delivery:
Following the receipt of their order, users contribute valuable feedback, encompassing various aspects. This feedback is thoughtfully stored within the safety guidelines field, ensuring continuous improvement based on user experiences.

Safety Guidelines Attributes:
Safety Guidelines serve as a comprehensive framework, incorporating essential attributes such as Rating, Review, Hygiene, and Feedback Form. These attributes collectively contribute to the overall safety and quality assurance within the application.

Post-Delivery Criteria:
All specified criteria, including rating, review, and hygiene considerations, are meticulously addressed after the food is delivered, ensuring a holistic and user-centric approach to post-delivery processes.

This structured workflow not only simplifies user interactions but also ensures a robust and user-friendly experience throughout the various stages of the application.

Diagram 2:

Activity Diagram for Admin, Restaurant Guide and City Employee
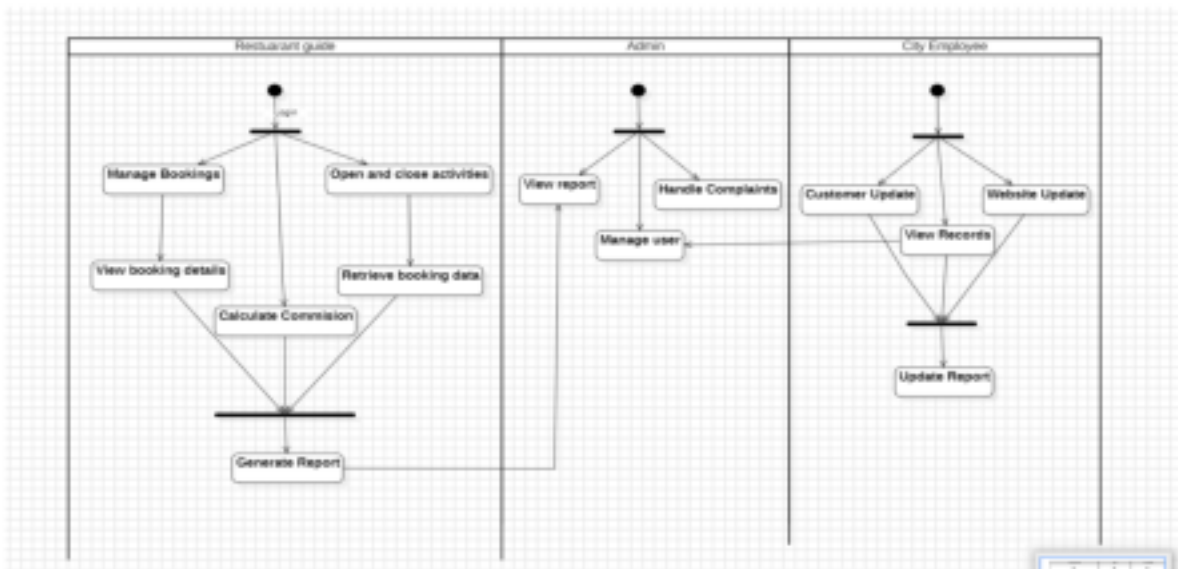
In this activity diagram, which incorporates swimlanes and other organizational tools, the sequential flow of actions for Admins, City Employees, and Restaurant Guides within the Food Safety Portal is meticulously illustrated:

Admin Login:
The initiation of the process lies with the admin, who commences by logging into the application using a personalized ID and password.

Report Viewing:
Upon a successful login, the admin gains privileged access to view reports meticulously generated by both city employees and restaurant guides.

City Employees' Tasks:
City employees, integral contributors to the system, adeptly execute the following tasks:

a. Update Website:
    City employees are tasked with the responsibility of ensuring the continuous update of the portal's website, keeping it dynamic and informative.

b. View Records of Customers:
Accessing and scrutinizing customer records to understand trends and preferences, enabling strategic decision-making.

c. Implement Filters for User Segmentation:
Proficiently applying filters to segment users, ensuring a targeted and personalized user experience.

Restaurant Guide's Responsibilities:

The restaurant guide, a pivotal entity in the system, adeptly manages diverse responsibilities:
- Day Open and Close Activities:
  Overseeing and managing the day's open and close activities within the portal, ensuring seamless operations.

- Commission Calculation:
  Skillfully calculating commissions for transactions, contributing to the financial efficiency of the restaurant guide.

- Booking Management:
  Handling and managing bookings made through the system, ensuring a streamlined and organized reservation process.

- Customer-Related Metrics Calculation:
  Calculating and analyzing metrics related to customer interactions, providing valuable insights for strategic decision-making

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Report Storage:
All activities meticulously conducted by city employees and restaurant guides are systematically stored in comprehensive reports. This strategic approach to documentation ensures a reliable reference for future analyses and decision-making processes, contributing to the overall efficiency and improvement of the Food Safety Portal.

Result: Activity diagram has been designed and studied.