Project Design Phase-I

Solution Architecture

Date	31.10. 2023
Team ID	NM2023TMID032
Project Name	Project –food tracking system
Maximum Marks	4 Marks

Solution Architecture:

Core Features of Customer App
Searching menu: Allow your users to search for different restaurants, cafes by location, and cuisines. Using the search filter, users can easily find their favorite eating places, list menu, offers, etc.
Order placement: The user can place an order of selected dishes and food. They just need to cross-verify their preferred dish, delivery time, and proceed check-out.
Tracking Delivery Partners: With real-time tracking features, it becomes easy for users to track delivery drivers and know their real-time location information. Users can check the time taken by the food delivery executive to deliver their parcel.
Payment gateway integration: You provide the users with multiple payment options like credit/debit cards, different wallets like Google Pay, Paytm, Phonepe, UPI, etc
Core Features of Delivery Partner
Delivery Partner’s profile: Through this feature, a driver can keep his profile update. It contains his full name, address, email, contact number, photo, and other personal information.
Notification for orders: Through push notifications, drivers can get constant updates & alerts for new orders. It will help in the accurate delivery service of your restaurant.
Map for the delivery route: Integrate Google Map or other providers and allow drivers to choose the shortest and fastest routes to reach the location.
Core Features of Food Partners/ Restaurants
Restaurant Profile/Menu: Through this feature, a restaurant owner can add their restaurant details, menu and its availability, price, preparation times, etc
Notification for orders: Through push notifications, Restaurants can get constant updates

& alerts for new orders. It will help in the accurate delivery service of your restaurant.

Notifications for Pickup Partners: They will get alerts about delivery partners, their location when they will pick up, etc.

Payment Details: Information about the payment received from the food delivery system for their orders

Core Features for Food Ordering System Admin

Restaurant management: Being on the admin panel, one can directly manage all the restaurants by adding, updating, and removing any eating joint from the list. He can also check active restaurant status.

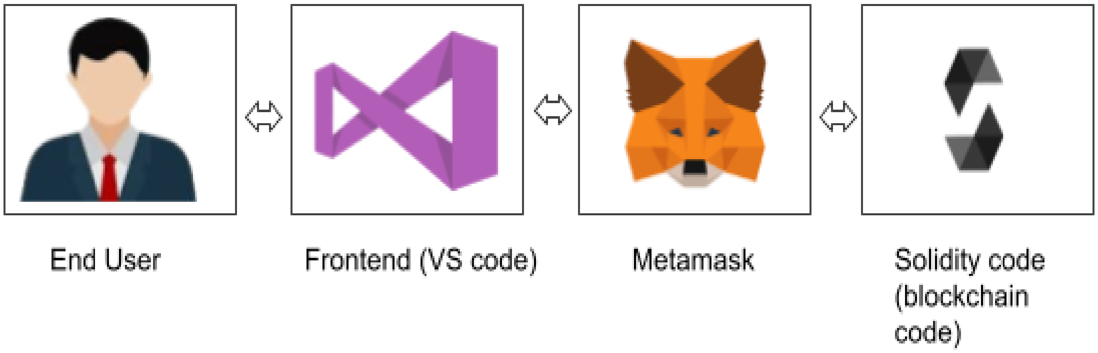
Analytics & report generation: Using analysis and report features, you can get real-time insights of reports and other accounting information which helps you to identify the growth and opportunities to expand reach.

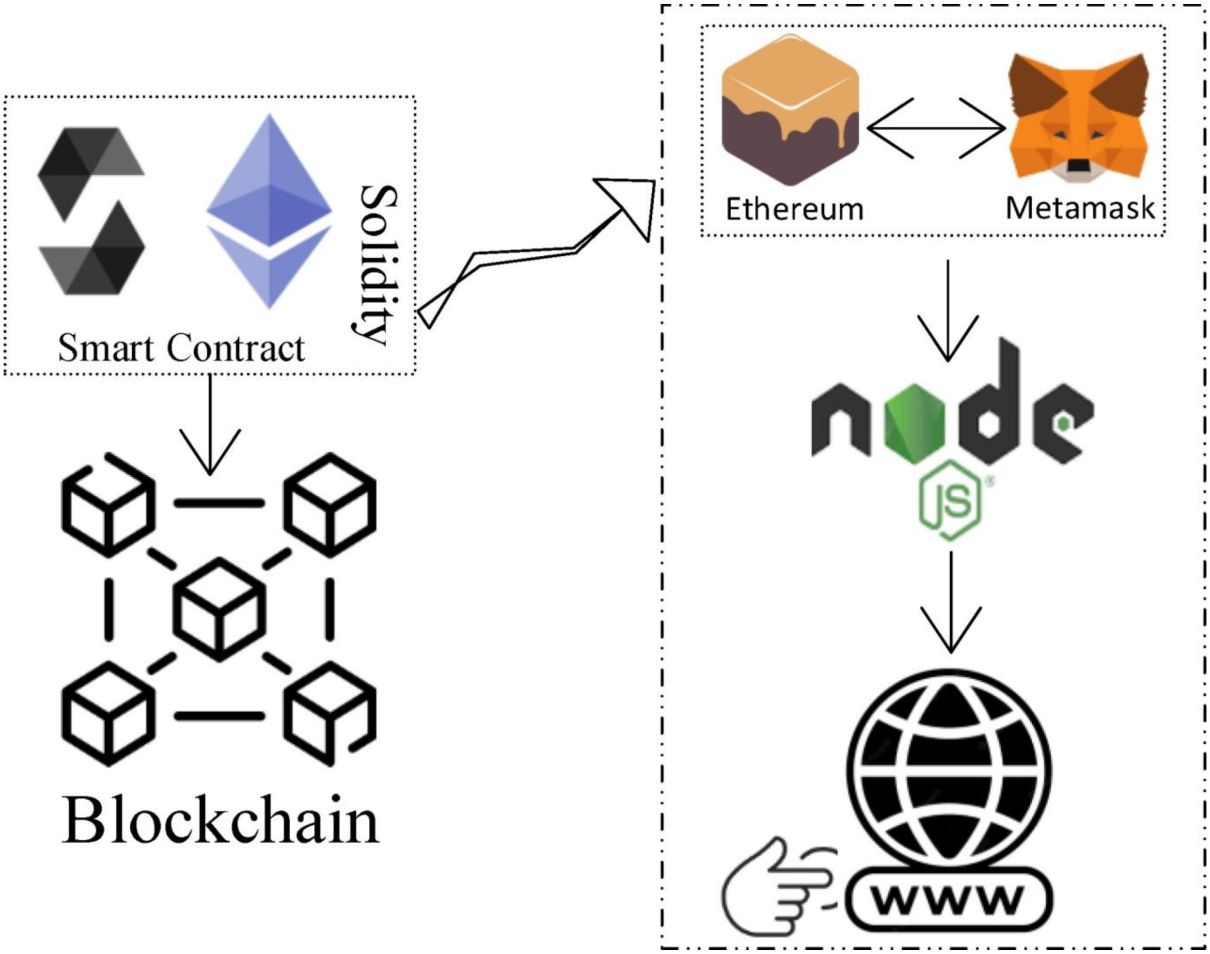
Monitoring every action: Monitor all the food orders, delivery partners, deliveries, reviews & ratings of delivery partners, canceled orders, and other important data related to the driver’s performance.

Application Flow

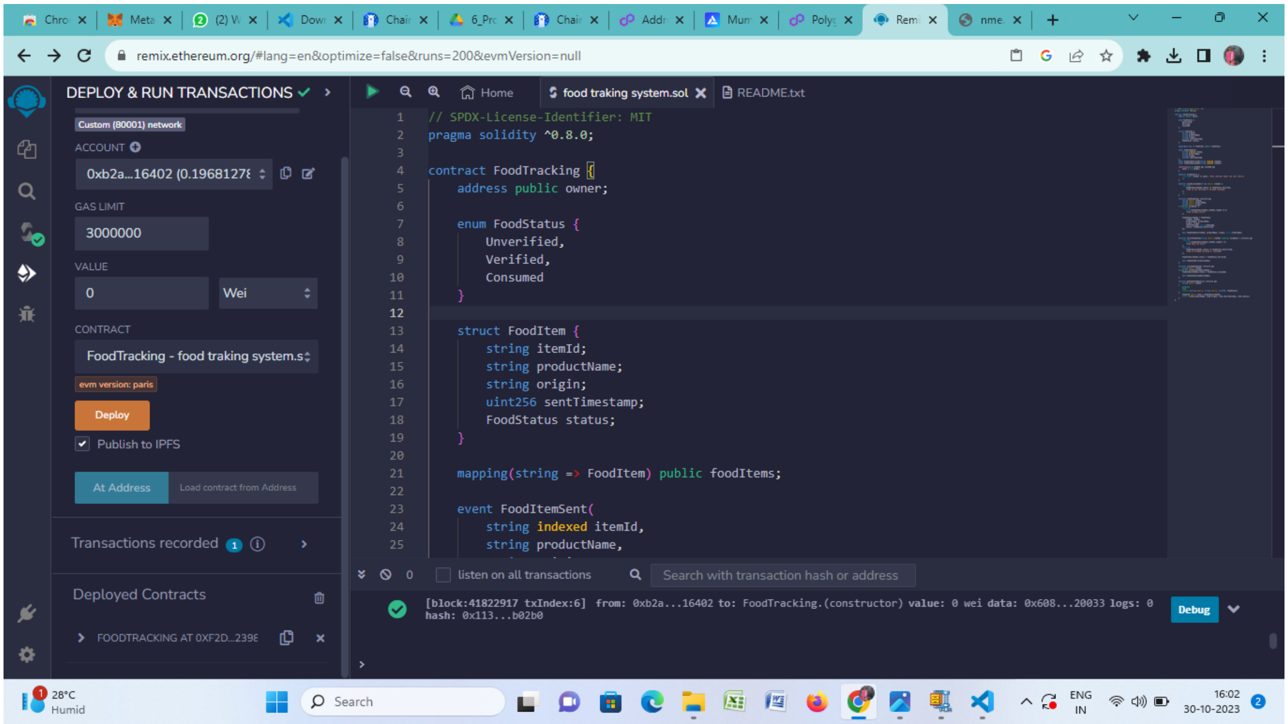
We are considering here microservices-based architecture. Different services are listed in the architecture diagram

Example - Solution Architecture Diagram:





Steps to complete the project



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DEPLOY & RUN TRANSACTIONS

Custom (80001) network

ACCOUNT: 0xb2a...16402 (0.1968127ε

GAS LIMIT: 3000000

VALUE: 0 Wei

CONTRACT: FoodTracking - food traking system.s

evm version: paris

Deploy

☑ Publish to IPFS

At Address | Load contract from Address

Transactions recorded 1

Deployed Contracts

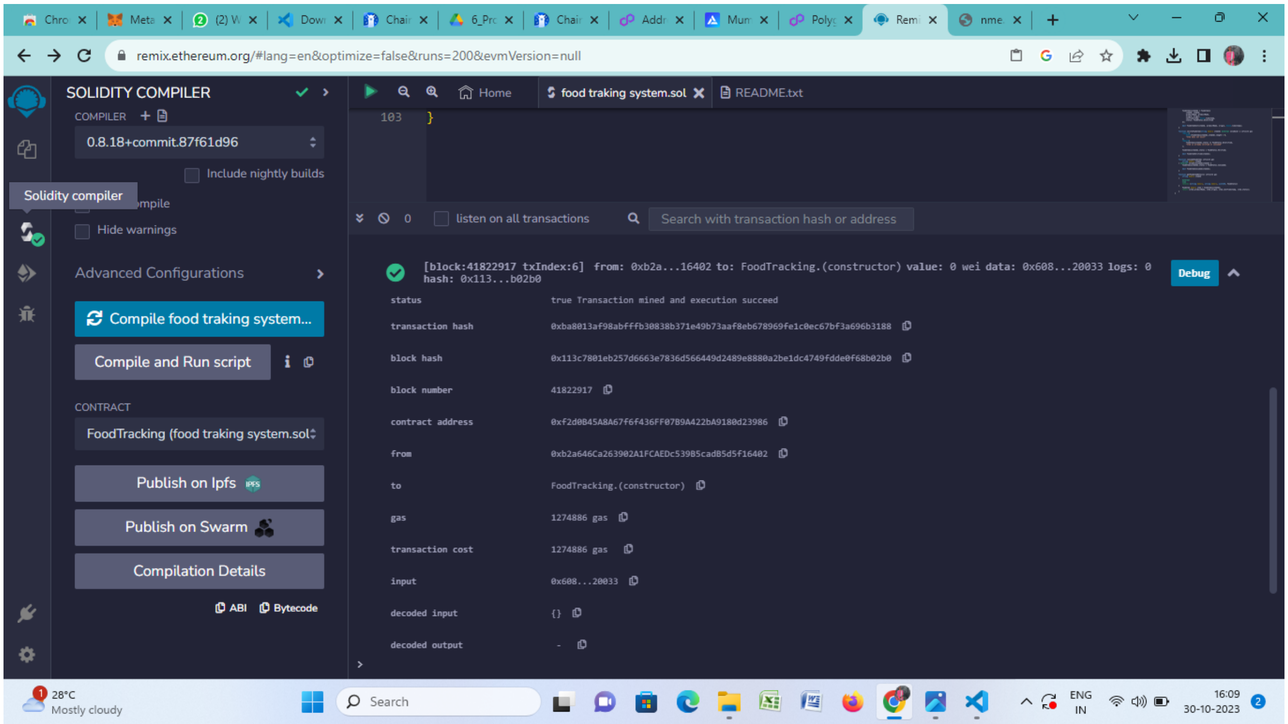
FOODTRACKING AT 0XF2D...239E

food traking system.sol | README.txt

```
// SPDX-License-Identifier: MIT
pragma solidity ^0.8.0;

contract FoodTracking {
    address public owner;

    enum FoodStatus {
        Unverified,
        Verified,
        Consumed
    }

    struct FoodItem {
        string itemId;
        string productName;
        string origin;
        uint256 sentTimestamp;
        FoodStatus status;
    }

    mapping(string => FoodItem) public foodItems;

    event FoodItemSent(
        string indexed itemId,
        string productName,
```

☐ listen on all transactions | Search with transaction hash or address

```
[block:41822917 txIndex:6] from: 0xb2a...16402 to: FoodTracking.(constructor) value: 0 wei data: 0x608...20033 logs: 0
hash: 0x113...b02b0
```



```
[block:41822917 txIndex:6] from: 0xb2a...16402 to: FoodTracking.(constructor) value: 0 wei data: 0x608...20033 logs: 0
hash: 0x113...b02b0
status              true Transaction mined and execution succeed
transaction hash    0xba8013af98abfffb30838b371e49b73aaf8eb678969fe1c0ec67bf3a696b3188
block hash          0x113c7801eb257d6663e7836d566449d2489e8880a2be1dc4749fdde0f68b02b0
block number        41822917
contract address    0xf2d0B45A8A67f6f436FF07B9A422bA9180d23986
from                0xb2a646Ca263902A1FCAEDc539B5cadB5d5f16402
to                  FoodTracking.(constructor)
gas                 1274886 gas
transaction cost    1274886 gas
input               0x608...20033
decoded input       {}
decoded output       -
```