

Software Architecture - 3 Tier

This architecture suited our project because of the nature of how the system is going to be used. The database only needs to hold information and be the central point for many devices. Also the system is small scale and calculations are not very extensive allowing devices to do the logic tier calculations. This is a divergence from the usual 3 Tier design but it enable us the freedom to not setup another service like an application server to handle the logic. As this architecture is modular such a logic tier service could be implemented in the future.

Presentation Tier

Customer UI

Easy UI for the customer to access the hosts services

- Menu
- Request account or make new account
- Games for kids

Restaurant UI

Designed for the kitchen and direct access to the database using a user friendly UI for the owner.

- Retrieves orders for kitchen
- Direct access to manipulate database information
- Update menu items and specials

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- Account data query
 - Menu data query
 - Relay customer comments
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- Menu changes
 - Database access
 - New order query
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Logic Tier

Customer Logic

Handles requests by customers and resolves such issues

- Account creation and manipulation
- Gets and sends menu data

Restaurant Logic

Handles requests by restaurant staff and resolves issues when doing the following tasks

- Fetching orders from the database
- Handles menu updates

Data Tier

Database

Data is stored in a central location for all devices to access.

- Menu Items
- User Account Details
- Specials
- Lodged orders