

Food Order Center – Android Application.

The system is a client server application, implemented in JDK 1.7.

The system will provide services for restaurants, companies and companies' employees.

The system will have the following user types:

Administrators (admin) – manage the system, admin can add companies and restaurant chains and delete them, can add additional users to the system with any privilege, or delete them.

Restaurant Network Administrator (net-admin) – may add or remove branches to the network, may add or remove branch admins for each of the branches.

Restaurant Branch Administrator (net-branch-admin) - manage his branch, may add or delete branch's employees (waiter), may change the menu of his branch, may add or remove type of available services: take away – for here, take away – to go, or delivery including the delivery radius from the current branch, can set the types of this restaurant - milk, meat, kosher.

Restaurant Employee (waiter) – May take orders from customers, can check if a customer ordered take away – to sit, can check if a costumer ordered take away - to go, or take away – for here, and deliver the meal to the costumer when its ready.

Company Administrator (company -admin) - manage his company, may add or delete company branches, manage branches, change the company name.

Company's Branch Admin (company-bracnh-admin) – May add or remove company employees (emp), May add or remove restaurants and the acceptable services from this restaurant (for example, if restaurant offers both take away – sit here and delivery, cadmin may approve only delivery), can do an area based search for restaurants in order to add them to the company approved restaurant list, can change each of the employees' budget, can add or remove other company branch admins, check for each employee for how much he exceeded from his budget in order to remove it from his salary.

Company Employee (emp) – Can search for service based (take away, delivery) restaurants, can search for location based approved restaurant, check the restaurant's menu and order according to his budget, can see other employee's orders for today, can see the history of his orders.

Server description

The server is a servlet based server and is developed using the Google App Engine Java SDK. The server use Google Web Toolkit (GWT) in order to provide remote procedure calls (RPC).

The server has a database – Google Data Store, and the database is accessed using the Java Data Object (JDO) interface with the implementation of Google Datastore JDO as provided as part of their SDK.

Client description

The client is an Android client using the Google Android SDK platform and developed on API level 10 – to support most of the clients available in the market, and must be user friendly for all the available users.

Once the user opens the app, he will login using his Google ID and password.

If the user has many privileges such as – waiter in a restaurant at night and company employee at day, he will be able to choose which type of privilege he wants to use.

Each privilege will have its own screen, and each screen will have different options.

A user without the appropriate access will not be able to access the screen nor do any operations which he doesn't have the privileges to.

Admin main screen will include at least these buttons:

- manage restaurant networks
- mange companies

When admin chooses 'manage restaurant networks', he should be provided with the option to add a new restaurant network or to search for a restaurant network, the search should be by its name, or from a list.

Once he found the proper network, he may delete it, or open the net-admin screen.

When admin chooses 'manage companies' he should be provided with the option to add a new company or to search for a company, the search should be by its name, or from a list.

Once he found the proper company, he may delete it, or open the company-admin screen.

Net-admin main screen will include at least these buttons:

- Change network name

- Manage branches

When net-admin chooses 'change network name' he should be provided with the options to change the network name.

When net-admin chooses to 'manage branches' – he should be provide with the option to add a new branch based on its location, search for a branch from a list, and enter each of the branches branch-admin main screen, or remove the found branch.

Branch-admin main screen will include at least these buttons:

- Manage branch options
- Manage waiters
- Manage menu
- Check for orders

When branch-admin chooses the option 'manage branch options' a new screen will appear and will provide branch-admin the following options: multiple select of the provided services from a list: take away – to go, take away – for here, delivery including the radius of delivery, multiple select the type of this branch – milk, meat, kosher.

When branch-admin chooses the options 'manage waiters' – he should be provided with the option to add or remove waiters.

When branch-admin chooses the option 'manage menu' – he should be provided with the following categories: 1st course, main course and desert. Once he chooses one of them he may add/remove/change courses, its description and its price.

When branch-admin chooses the option 'check for orders' – he shall be provided with the list of all the orders so far, including the option to mark an order as already handled. When there is a new order, a notification shall appear on the screen of the branch-admin, once he marks an order as handled (it means he delivered the order to the chef), it will be marked as handled for all the branch-admins of this branch, and if the order is take away – a notification will appear for each of the waiters, if it's not take-away, handled is the end of this operation.

Waiter main screen – will include at least these buttons:

- Add new order
- View orders

When waiter chooses 'Add new order' he should be provided with the same menu as the emp – restaurant menu – take away – for here.

When waiter chooses 'View Orders' a list with the up to 10 last take away for here orders, which have not been served yet, should appear, if there are more than 10, a previous/next button will help the waiter to navigate. Once the order is delivered to the client, the waiter can check this order as delivered.

When there is a new order from the emp/client which is take away, once the branch-admin handles it, it means the order was delivered to the chef, a notification will appear for all the waiters, once one of the waiters checks the order as delivered, it will be marked as delivered for all the waiters order lists.

Company-admin main screen – will include at least these buttons:

- Change company name
- Manage company branches

When company-admin chooses 'change company name' he should be provided with the options to change the company name.

When company-admin chooses the option 'manage company branches' he shall be provided with the option to search for all the branches of his company, he can delete some of them, add new branches based on its locations, and enter each of the branches company-branch-admin main screen.

Company-branch-admin main screen – will include at least these buttons:

- Manage employees
- Manage service types
- Manage base budget

When company-branch-admin chooses the option 'manage employees' – he should be provided with the option to add or remove employees, and he may search for an employee by its name, and change his custom budget (delta from the base budget).

When company-branch-admin chooses 'Manage service type' he should be provided with a multiple selection of which of the service types he wants to make acceptable for his employees, the service types are – take away – to go, take away – for here, delivery.

Emp main screen – will include at least these buttons:

- Search for restaurant
- My History
- My coworkers

When emp chooses 'search for restaurant' a new screen will appear, this screen will include the following options:

'name' with a text field to enter the name, 'food type' with multi select meat, milk, kosher or any (default is any), 'service type' with multi select take away- to go, take away-for here, delivery or any (default is delivery).

The user may fill all the fields or some of the fields and hit the search button.

once the search is done a list with all the found branches will appear on the screen, the user may select one of them and a menu screen will be opened, the user may change the service type even if he is already on the menu – of course if this network branch allows it, and if its company branch allows it, once he selects a course on the menu, it will be added to his cart with the restaurant's name, appropriate service type and its price.

The emp should be able to change the screen to its cart and back whenever he wants.

Once the user has finished filling his cart he can switch to the cart's screen and choose 'buy cart', 'empty cart' or 'change service type'.

If the emp tries to add to cart from different restaurants, a popup message should appear telling him that he can't and he should be able to choose: 'abort' or 'empty cart and add new item'.

When emp chooses 'My History' a new screen will appear, this screen will include a list of all of the last 10 previous purchases, if there are more than 10 purchases, a next, previous buttons should allow the user to see the whole list.

When emp chooses 'My coworkers' a new screen will appear, on this screen he can search for a coworker, by typing its name and see where this coworker goes and what he ordered.