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*Dolphins*

***The Good Bean* System Design Document**

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# **Introduction**(ED)

The purpose of this document is to summarize the design requirements for the functions of the Good Bean coffee application. In this document, you will find a detailed summary of the function requirements, along with diagrams outlining the design utilities. The *Class Diagrams* will outline all of the design objects, their attributes and methods. The *Pseudocode* will show objectives of each method from the class diagrams. The *StateChart Diagrams* will model each object’s lifetime. The *First Cut Domain Sequence Diagrams* will display the “uses” of each system within the Good Bean in time sequence.

# **Design Level Class Diagram**(ED)

# Pseudocode

#### Receipt Class(BR):

Receipt Method:

* Sets date to the value of parameter date.
* Sets location to the value of parameter location.
* Sets total to the value of parameter total.
* Sets earnedPoints to the value of parameter earnedPoints.
* Sets payment to the value of parameter payment.

createOrderNum Method:

* Chooses a random integer between 0 and 999999 to set as orderNum.

displayReceipt Method:

* Prints out date, location, total, earnedPoints, payment, and orderNum.

updateEarnedPoints Method:

* Sets new value for earned points using earnedPoints parameter.

deleteReceipt Method:

* Deletes receipts with a date older then 4 years.

#### Menu Class(BR):

Menu Method:

* Sets item to value of parameter item.

displayMenu Method:

* Prints out all items.

addItem Method:

* Adds new item value to menu.

deleteItem Method:

* Deletes specified parameter item.

#### Item Class(BR):

Item Method:

* Sets item to the value of parameter item.
* Sets category to the value of parameter category.
* Sets favorite to the value of parameter favorite.
* Sets image to the value of parameter image.
* Sets price to the value of parameter price.
* Sets description to the value of parameter description.

displayItem Method:

* Prints out item, category, favorite, image, price, description.

updateItem Method:

* Sets new item value using parameter item.
* Sets new description value using parameter description.
* Sets new price value using parameter price.
* Sets new favorite value using parameter favorite.

removeFavorite Method:

* Deletes a favorite value.

removeImage Method:

* Deletes current image value.

deleteItem Method:

* Deletes all currently set values.

#### Payment Class(NM):

Payment Method:

* Set credit card number.
* Set security code.
* Set expiration date.

updatePayment Method:

* Update payment information (card number, security code, expiration date).

updateStatus Method:

* If payment is declined, update status to declined.
* If payment is authorized, update status to authorized.

savePayment Method:

* If customer has rewards account, can save payment information(card number, security code, expiration date).

deletePayment Method:

* Delete payment method.

#### Account Class(NM):

Account Method:

* Set user name.
* Set email address.
* Set password that is at least 6 characters, contains at least 1 letter and 1 number.

login Method:

* Enter email.
* Enter password.
* If email and password match, log into account.

logout Method:

* Logout from account.

termsCondition Method:

* Send term and conditions to customers creating rewards account.

updatePayment Method:

* Update payment information, calls Payment class.

updateAccount Method:

* Update name.
* Update email address.
* Update password.

claimReward Method:

* Display reward options.
* Select from reward options.
* Return amount to be subtracted from total purchase.

displayReward Method:

* Display selected reward.

displayAccount Method:

* Display account information.

deleteAccount Method:

* Delete account when requested.

#### Order Class(ED):

Order Method:

* Set size of item.
* (Optional) Add any extras to item.
* Set quantity of item.
* Set pickup time for order.
* Add item to order.

addPayment Method:

* Add payment.

addPhone Method:

* (Optional) Add phone number to receive order notifications.

displayOrder Method:

* Print item, picked size, extras, picked quantity, pickup time, total of order, added payment.

updateOrder Method:

* Update size of item.
* Update extras picked.
* Update quantity selected.
* Update pickup time
* Update payment added.
* Update total according to any changes.

updateStatus Method:

* If order is in progress, update status of order to “in progress”.
* If order is ready, update status of order to “ready”.

recordOrder Method:

* Record order to account using order number.

sendNotification Method:

* If status is created: Send order notification to the employee and change status to in progress.
* If order is ready: Send order-ready notification to customer and change status to ready..

deleteOrder Method:

* Delete order for future versions of code.

#### Location Class(ED):

Location Method:

* Set address, store hours of location.
* Set promotion for location.

getAddress Method:

* Send address to Google Maps.

addNewStore Method:

* Add new store by adding address, store hours, promotions and setting to open google maps to get directions.
* Return the new location to the list of locations.

displayLocation Method:

* Print the address, store hours, promotions, and directions for each location.

updateLocation Method:

* Update promotion and store hours.

deletePromotion Method:

* Delete promotion.

deleteLocation Method:

* Delete location.

# **StateChart Diagrams**

# **First Cut Domain Sequence Diagrams**