+ (public)

# (protected)

- (private)

Static will be underlined

*Abstract will be italic*

**Final will be bold**

* 1. Class Application.ApplicationController

1.1.1 Field

|  |  |
| --- | --- |
| - ApplicationController instance |  |
| - NavigationBar navBar |  |
| - ContentContainer contentCont |  |
| - NavigationButtonPane warehouseBtnPane |  |
| - NavigationButtonPane itemInBtnPane |  |
| - NavigationButtonPane itemOutBtnPane |  |
| - NavigationButtonPane statBtnPane |  |
| - NavigationButtonPane customerBtnPane |  |
| - NavigationButtonPane listBtnPane |  |
| - NavigationButtonPane helpBtnPane |  |
| - Pane warehousePane |  |
| - Pane itemInPane |  |
| - Pane itemOutPane |  |
| - Pane customerPane |  |
| - Pane statPane |  |
| - Pane alBillPane |  |
| - Pane helpPane |  |

1.1.2 Constructor

|  |  |
| --- | --- |
| - ApplicationController() |  |

1.1.3 Method

|  |  |
| --- | --- |
| + void InitializeNavigationButton() |  |
| + ApplicationController getInstance() |  |
| + NavigationBar getNavigationBar() |  |
| + ContentContainer getContentContainer() |  |

* 1. Class Application.BillPDF

1.2.1 Field

|  |  |
| --- | --- |
| - ObservableList<ItemOutDataSet> items |  |
| - int billNum |  |
| - boolean isFirst |  |
| - double totalAmount |  |

1.2.2 Method

|  |  |
| --- | --- |
| + void printPDF (ObservableList<ItemOutDataSet> items, int billNum, String path , String discountBath, String taxPercent, String price, String netPrice) |  |
| + void readPDF(String fileName) |  |

1.3 Class Application.ContentContainer

1.3.1 Field

|  |  |
| --- | --- |
| **+ String APPLICATION\_BACKGROUND\_COLOR** |  |
| **+ int CONTENT\_CONTAINER\_PADDING** |  |
| **+ Background CONTENT\_BACKGROUND** |  |

1.3.2 Constructor

|  |  |
| --- | --- |
| + ContentContainer(ArrayList<Pane> panes) |  |

1.4 Class Application.DateThai

1.4.1 Field

|  |  |
| --- | --- |
| - Calendar c |  |
| - String Months[] |  |
| - String abrevMonths[] |  |

1.4.2 Method

|  |  |
| --- | --- |
| + String getThaiAbrevMonth(int month |  |
| + String getCurrentThaiDate() |  |
| + String getNumberDateFormat() |  |
| + String numberDateToThaiDate(String date) |  |
| + int getCurrentMonthNumber() |  |
| + int getCurrentYear() |  |

1.5 Interface Application.Discolorable

1.5.1 Method

|  |  |
| --- | --- |
| *+ void setCssStyle(String cssClass)* |  |

1.6 Class Application.Main

1.6.1 Method

|  |  |
| --- | --- |
| + void start(Stage primaryStage) |  |
| + void main(String[] args) |  |

1.7 Class Application.NavigationBar

1.7.1 Field

|  |  |
| --- | --- |
| **+ String NAVIGATION\_BAR\_BACKGROUNDCOLOR** |  |
| **+ int NAVIGATION\_BAR\_PADDING\_TOP** |  |
| **+ int NAVIGATION\_BAR\_PADDING\_BOTTOM** |  |
| **+ int NAVIGATION\_BAR\_PADDING\_RIGHT** |  |
| **+ int NAVIGATION\_BAR\_PADDING\_LEFT** |  |
| **+ Background DEFAULT\_NAVIGATION\_BACKGROUND** |  |
| - ArrayList<NavigationButtonPane> navBtnPanes |  |

1.7.2 Constructor

|  |  |
| --- | --- |
| + NavigationBar  (ArrayList<NavigationButtonPane> navBtnPanes) |  |

1.7.3 Method

|  |  |
| --- | --- |
| + ArrayList<NavigationButtonPane> getNavigationButtonPanes() |  |

1.8 Class Application.NavigationButton

1.8.1 Field

|  |  |
| --- | --- |
| **+ int NAVIGATION\_BUTTON\_WIDTH** |  |
| **+ int NAVIGATION\_BUTTON\_HEIGHT** |  |
| **+ int NAVIIGATION\_BUTTON\_IMAGE\_WIDTH** |  |
| **+ int NAVIIGATION\_BUTTON\_IMAGE\_HEIGHT** |  |
| **+ int NAVIGATION\_BUTTON\_PADDING** |  |
| - ImageView image |  |
| - NavigationButtonPane navigationButtonPane |  |
| - NavigationBar navigationBar |  |

1.8.2 Constructor

|  |  |
| --- | --- |
| + NavigationButton(String text, String imagePath) |  |

1.8.3 Method

|  |  |
| --- | --- |
| + NavigationButtonPane getNavigationButtonPane() |  |
| + void setNavigationButtonPane(NavigationButtonPane holder) |  |
| + NavigationBar getNavigationBar() |  |
| + void setNavigationBar(NavigationBar navigationBar) |  |
| + void setImageWidthHeight(int width, int height) |  |
| + void setCssStyle(String cssClass) |  |

1.9 *Class Application.NavigationButtonEventHandler*

1.9.1 Method

|  |  |
| --- | --- |
| + void handle(ActionEvent event) |  |
| + *void showContentPane()* |  |

1.10 Class Application.NavigationButtonPane

1.10.1 Field

|  |  |
| --- | --- |
| **+int NAVIGATION\_BUTTON\_PANE\_PADDING\_TOP** |  |
| **+int NAVIGATION\_BUTTON\_PANE\_PADDING\_RIGHT** |  |
| **+ int NAVIGATION\_BUTTON\_PANE\_PADDING\_BOTTOM** |  |
| **+ int NAVIGATION\_BUTTON\_PANE\_PADDING\_LEFT** |  |
| **- NavigationButton navBtn** |  |

1.10.2 Constructor

|  |  |
| --- | --- |
| + NavigationButtonPane  (NavigationButton button) |  |

1.10.3 Method

|  |  |
| --- | --- |
| + void highlightBackground() |  |
| + void unHighlightBackground() |  |
| + NavigationButton getNavigationButton() |  |

1.11 Class DataModel.BillModel

1.11.1 Field

|  |  |
| --- | --- |
| - String billId |  |
| - String billDate |  |
| - String customerName |  |
| - String note |  |

1.11.2 Constructor

|  |  |
| --- | --- |
| + BillModel(String billId, String billDate, String customerName, String note) |  |

1.11.3 Method

|  |  |
| --- | --- |
| +Getter & Setter methods for every field |  |

1.12 Class DataModel.CustomerTableModel

1.12.1 Field

|  |  |
| --- | --- |
| - String customerName |  |
| - String buyAmount |  |
| - String lastestBuyDate |  |
| - String totalBuy |  |
| - String totalProfit |  |
| - String note |  |

1.12.2 Constructor

|  |  |
| --- | --- |
| CustomerTableModel  (String customerName, String buyAmount, String lastestBuyDate, String totalBuy,String totalProfit, String note) |  |

1.12.3 Method

|  |  |
| --- | --- |
| + String getCustomerName() |  |
| + String getBuyAmount( |  |
| + String getLastestBuyDate() |  |
| + String getTotalBuy() |  |
| + String getTotalProfit() |  |
| + String getNote() |  |
| + void setNote(String note) |  |

1.13 Class DataModel.DataSet

1.13.1 Field

|  |  |
| --- | --- |
| + **int CELL\_IMAGE\_WIDTH** |  |
| - ImageView image |  |
| - String itemId |  |
| - String itemSn |  |
| - String itemName |  |
| - String unit |  |
| - String amount |  |
| - String buyPrice |  |
| - String sellPrice |  |
| - String category |  |
| - String subCategory |  |
| - String note |  |

1.13.2 Constructor

|  |  |
| --- | --- |
| + DataSet  (String imagePath, String itemId, String itemSn, String itemName, String unit, String amount, String buyPrice, String sellPrice, String category, String ubcategory, String note) |  |
| + DataSet(DataSet other) |  |

1.13.3 Method

|  |  |
| --- | --- |
| + Getter & Setter methods for every field  (excepts CELL\_IMAGE\_WIDTH) |  |

1.14 Class DataModel.ItemOutDataSet

1.14.1 Field

|  |  |
| --- | --- |
| - DataSet dataSe |  |
| - int sellAmount |  |
| - double totalPrice |  |

1.14.2 Constructor

|  |  |
| --- | --- |
| + ItemOutDataSet  (DataSet dataSet, int sellAmount) |  |

1.14.3 Method

|  |  |
| --- | --- |
| + String getItemSn() |  |
| + ImageView getImage() |  |
| + String getItemId() |  |
| + String getItemName() |  |
| + String getBuyPrice() |  |
| + String getSellPrice( |  |
| + String getSellAmount() |  |
| + String getTotalPrice() |  |

1.15 Class Factory.ApplicationFactory

|  |  |  |
| --- | --- | --- |
| **+ String MAIN\_DATABASE\_DIRECTORY** |  | |
| **+ String MAIN\_DATABASE\_FILE\_NAME** | |  |
| **+ String MAIN\_DATEBASE\_NAME** | |  |
| **+ String MAIN\_DATABASE\_ITEM\_NAME** | |  |
| **+ String MAIN\_DATABASE\_ITEM\_ID** | |  |
| **+ String MAIN\_DATABASE\_ITEM\_SERIAL\_NUNBER** | |  |
| **+ String MAIN\_DATABASE\_ITEM\_UNIT** | |  |
| **+ String MAIN\_DATABASE\_ITEM\_BUY\_PRICE** | |  |
| **+ String MAIN\_DATABASE\_ITEM\_SELL\_PRICE** | |  |
| **+ String MAIN\_DATABASE\_ITEM\_AMOUNT** | |  |
| **+ String MAIN\_DATABASE\_ITEM\_CATEGORY** | |  |
| **+ String MAIN\_DATABASE\_ITEM\_SUBCATEGORY** | |  |
| **+ String MAIN\_DATABASE\_ITEM\_NOTE** | |  |
| **+ String MAIN\_DATABASE\_IMAGE\_DIRECTORY** | |  |
| **+ String CATEGORY\_DATABASE\_NAME** | |  |
| **+ String CATEGORY\_DATABASE\_COLUMN\_NAME** | |  |
| **+ String SUB\_CATEGORY\_COLUMN\_NAME** | |  |
| **+ String WAREHOUSE\_TABLE\_IMAGE\_COLUMN\_NAME** | |  |
| **+ String WAREHOUSE\_TABLE\_ITEM\_ID\_COLUMN\_NAME** | |  |
| **+ String**  **WAREHOUSE\_TABLE\_ITEM\_SERIAL\_NUMBER\_COLUMN\_NAME** | |  |
| **+ String WAREHIUSE\_TABLE\_ITEM\_NAME\_COLUMN\_NAME** | |  |
| **+ String WAREHOUSE\_TABLE\_UNIT\_COLUMN\_NAME** | |  |
| **+String WAREHOUSE\_TABLE\_AMOUNT\_COLUMN\_NAME** | |  |
| **+String WAREHOUSE\_TABLE\_BUY\_PRICE\_COLUMN\_NAME** | |  |
| **+String WAREHOUSE\_TABLE\_SELL\_PRICE\_COLUMN\_NAME** | |  |
| **+ String WAREHOUSE\_TABLE\_CATEGORY\_COLUMN\_NAME** | |  |
| **+ String WAREHOUSE\_TABLE\_SUB\_CATEGORY\_COLUMN\_NAME** | |  |
| **+ String WAREHOUSE\_TABLE\_NOTE\_COLUMN\_NAME** | |  |
| **+ String DEFAULT\_BILL\_DIRECTORY\_NAME** | |  |
| **+ String CUSTOMER\_DATABASE\_NAME** | |  |
| **+ String STATISTICS\_DATABASE\_NAME** | |  |
| **+ String CUSTOMER\_DATABASE\_CUSTOMER\_NAME\_COLOUMN\_NAME** | |  |
| **+ String CUSTOMER\_DATABASE\_BUY\_AMOUNT\_COLUMN\_NAME** | |  |
| **+ String CUSTOMER\_DATABASE\_LASTEST\_BUY\_DATE\_COLUMN\_NAME** | |  |
| **+ String CUSTOMER\_DATABASE\_TOTAL\_BUY\_COLUMN\_NAME** | |  |
| **+ String CUSTOMER\_DATABASE\_TOTAL\_PROFIT\_COLUMN\_NAME** | |  |
| **+ String CUSTOMER\_DATABASE\_NOTE\_COLUMN\_NAME** | |  |
| **+ String STATISTICS\_DATABASE\_ITEM\_NAME\_COLUMN\_NAME** | |  |
| **+ String STATISTICS\_DATABASE\_ITEM\_ID\_COLUMN\_NAME** | |  |
| **+ String STATISTICS\_DATABASE\_ITEM\_SERIAL\_NUMBER\_COLUMN\_NAME** | |  |
| **+ String STATISTICS\_DATABASE\_SELL\_AMOUNT\_COLUMN\_NAME** | |  |
| **+ String STATISTICS\_DATABASE\_TOTAL\_SELL\_COLUMN\_NAME** | |  |
| **+ String STATISTICS\_DATABASE\_TOTAL\_PROFIT\_COLUMN\_NAME** | |  |
| **+ String STATISTICS\_DATABASE\_MONTH\_COLUMN\_NAME** | |  |
| **+ String STATISTICS\_DATABASE\_YEAR\_COLUMN\_NAME** | |  |
| **+ String BILL\_DATABASE\_NAME** | |  |
| **+ String BILL\_DATABASE\_BILL\_ID\_COLUMN\_NAME** | |  |
| **+ String BILL\_DATABASE\_BILL\_DATE\_COLUMN\_NAME** | |  |
| **+ String BILL\_DATABASE\_CUSTOMER\_NAME\_COLUMN\_NAME** | |  |
| **+ String BILL\_DATABASE\_NOTE\_COLUMN\_NAME** | |  |

1.16 Class FXMLController.BillsController

1.16.1 Field

|  |  |
| --- | --- |
| - TextField billIdTf |  |
| - TextField billDateTf |  |
| - TextField customerNameTf |  |
| - Button searchBtn |  |
| - Button clearBtn |  |
| - TableView table |  |
| - TableColumn billIdTc |  |
| - TableColumn billDateTc |  |
| - TableColumn customerNameTc |  |
| - TableColumn noteTc |  |
| - TableColumn printTc |  |
| - Statement billStatement |  |

1.16.2 Method

|  |  |
| --- | --- |
| + void initialize(URL arg0, ResourceBundle arg1) |  |
| + void clearInput() |  |
| + void searchData() |  |
| - void loadDataToTable(ResultSet res) throws SQLException |  |
| - void initializeTable() |  |
| - void showEditNoteDialog(BillModel model) |  |
| + void showErrorDialog  (String header, String message) |  |
| - void showInfomationDialog  (String title, String header, String message) |  |
| - void initializeBillDatabase() throws SQLException |  |

1.17 Class FXMLController.CustomerController

1.17.1 Field

|  |  |
| --- | --- |
| **- int CUSTOMER\_CELL\_SIZE** |  |
| **+ int NOTE\_DIALOG\_WIDTH** |  |
| **+ int NOTE\_DIALOG\_HEIGHT** |  |
| - TextField customerNameTf |  |
| - Button searchBtn |  |
| - Button clearBtn |  |
| - TableView table |  |
| - TableColumn customerNameTc |  |
| - TableColumn buyAmountTc |  |
| - TableColumn lastestBuyDateTc |  |
| - TableColumn totalBuyTc |  |
| - TableColumn totalProfitTc |  |
| - TableColumn noteTc |  |
| - Statement statement |  |

1.17.2 Method

|  |  |
| --- | --- |
| + void initialize(URL arg0, ResourceBundle arg1) |  |
| + void clearInput() |  |
| + void showErrorDialog(String header, String message) |  |
| - void initializeTable() |  |
| - void showEditNoteDialog(CustomerTableModel model) |  |
| - void initializeDatabaseConnection() throws SQLException |  |
| - void searchCustomer() throws SQLException |  |
| - void loadDataToTable(ResultSet res) throws SQLException |  |

1.18 Class FXMLController.ItemInController

1.18.1 Field

|  |  |
| --- | --- |
| + int ITEM\_IN\_IMAGE\_FIT\_WIDTH |  |
| -TextField itemNameTf |  |
| - TextField itemIdTf |  |
| - TextField snTf |  |
| - TextField unitTf |  |
| - TextField buyPriceTf |  |
| - TextField sellPriceTf |  |
| - TextField amountTf |  |
| - TextField categoryTf |  |
| - TextField subCategoryTf |  |
| - ImageView showImageIv |  |
| - Button addImageBtn |  |
| - Button acceptBtn |  |
| - Button deniedBtn |  |
| - TextArea noteTa |  |
| - BufferedImage pickedImage |  |
| - Statement statement |  |
| - WarehouseController warehouseController |  |

1.18.2 Method

|  |  |
| --- | --- |
| + void initialize(URL arg0, ResourceBundle arg1) |  |
| + void setWarehouseController(WarehouseController wc) |  |
| + WarehouseController getWarehouseController() |  |
| + void pickImage() |  |
| + void initilizeDatabaseConnection() throws SQLException |  |
| - void manipulateCategoryDatabase  (String category) throws SQLException |  |
| - void manipulateSubCategoryDatabase  (String category, String ubcategory) throws SQLException |  |
| - void createMainDatabase() throws SQLException |  |
| - void insertDataToMainDatabase  (String itemName, int itemId, String sn, String unit, double buyPrice, double sellPrice, int amount, String category, String ubcategory, String note) throws Exception |  |
| - void saveImage(int itemId) throws IOException |  |
| + void validateUserInput() |  |
| - oolean isNumeric(String text) |  |
| + public void clearInput() |  |
| - void showInvalidInputDialog(String message) |  |
| - void showInfomationDialog  (String title, String message) |  |

1.19 Class FXMLController.ItemOutController

1.19.1 Field

|  |  |
| --- | --- |
| - TextField customerNameTf |  |
| - TextField billIdTf |  |
| - TextField billDateTf |  |
| - TextField noteTf |  |
| - TextField saveBillDestinationTf |  |
| - TextField priceTf |  |
| - TextField discountByBahtTf |  |
| - TextField discountByPercentTf |  |
| - TextField discountByPercentBahtTf |  |
| - TextField vatTf |  |
| - TextField vatBahtTf |  |
| - TextField netPriceTf |  |
| - TextField profitTf |  |
| - Button viewBillBtn |  |
| - Button selectBillDestinationBtn |  |
| - Button okBtn |  |
| - Button cancelBtn |  |
| - RadioButton discountByBahtRb |  |
| - RadioButton discountByPercentRb |  |
| - TableView table |  |
| - TableColumn imageT |  |
| - TableColumn itemIdTc |  |
| - TableColumn snTc |  |
| - TableColumn itemNameTc |  |
| - TableColumn buyPriceTc |  |
| - TableColumn sellPriceTc |  |
| - TableColumn sellAmountTc |  |
| - TableColumn itemTotalPriceTc |  |
| - ObservableList<ItemOutDataSet> itemOutDataSets |  |
| - File destinationDirectory |  |
| - Statement customersStatement |  |
| - Statement statisticsStatement; |  |
| - Statement stockStatement |  |
| - Statement billStatement |  |
| - DecimalFormat decimalFormatter |  |
| - WarehouseController warehouseController |  |

1.19.2 Method

|  |  |
| --- | --- |
| + void initialize(URL arg0, ResourceBundle arg1) |  |
| + void setWarehouseController  (WarehouseController wc) |  |
| + ObservableList<ItemOutDataSet> getItemOutDataSets() |  |
| - void showErrorDialog  (String title, String header, String message) |  |
| + void initializeBillDatabaseConnection() throws SQLException |  |
| + void initializeStockDatabaseConnection() throws SQLException |  |
| + void initializeCustomerDatabaseConnection() throws SQLException |  |
| - void initializeStatisticsDatabaseConnection() throws SQLException |  |
| - void updateBillsDatabase  (String billId, String billDate, String customerName, String note) throws SQLException |  |
| - void updateStatisticsDatabase  (String itemName, String itemId, String itemSn, String sellAmount, String totalSell, String totalProfit, int month, int year) throws SQLException |  |
| - void updateCustomerDatabase  (String customerName, String netPrice, String profit, String lastestBuyDate) throws SQLException |  |
| - void updateStockDatabase  (String itemSn, int sellAmount) throws SQLException |  |
| + void pickDirectory() |  |
| - void initializeTable() |  |
| - void initializeFinancialTextFieldBinding() |  |
| - void initializeNumericTextField() |  |
| + void updateFinancialTextField() |  |
| + void validateInput() |  |
| - void showInfomationDialog  (String title, String header, String message) |  |
| - void updateData() throws SQLException |  |
| - oolean isNumeric(String text) |  |
| - void showInputWarningDialog(String message) |  |
| - void showAlertDialog  (String title, String header, String message |  |
| + void clearInput() |  |
| + void setDiscountByBath() |  |
| + void setDiscountByPercent() |  |

1.20 Class FXMLController.StatController

1.20.1 Field

|  |  |
| --- | --- |
| - ComboBox xCb |  |
| - ComboBox yCb |  |
| - ComboBox itemNameCb |  |
| - LineChart chart |  |
| - NumberAxis yAxis |  |
| - CategoryAxis xAxis |  |
| - Button reloadBtn |  |
| - Statement statement |  |
| - XYChart.Series totalSellSeries |  |
| - XYChart.Series totalProfitSeries |  |

1.20.2 Method

|  |  |
| --- | --- |
| + void printPDF  (ObservableList<ItemOutDataSet> items, int billNum, String path , String discountBath, String taxPercent, String price, String netPrice) |  |
| + void readPDF(String fileName) |  |

1.21 Class FXMLController. WarehouseController

1.21.1 Field

|  |  |
| --- | --- |
| + int TABLE\_ROW\_SIZE |  |
| - TextField itemIdTf |  |
| - TextField itemNameTf |  |
| - ComboBox categoryCb |  |
| - ComboBox subCategoryCb |  |
| - Button searchBtn |  |
| - Button clearBtn |  |
| - TableView table |  |
| - TableColumn imageTc |  |
| - TableColumn itemIdTc |  |
| - TableColumn snTc |  |
| - TableColumn itemNameTc |  |
| - TableColumn unitTc |  |
| - TableColumn amountTc |  |
| - TableColumn buyPriceTc |  |
| - TableColumn sellPriceTc |  |
| - TableColumn categoryTc |  |
| - TableColumn subCategoryTc |  |
| - TableColumn noteTc |  |
| - Statement statement |  |
| - Statement categoryStatement |  |
| - ItemOutController itemOutController |  |

1.21.2 Method

|  |  |
| --- | --- |
| + void initialize(URL arg0, ResourceBundle arg1) |  |
| + ItemOutController getItemOutController() |  |
| + void setItemOutController(ItemOutController ioc) |  |
| + void loadCategory() |  |
| - void initializeDatabaseConnection() |  |
| + void clearInput() |  |
| - void initializeTable() |  |
| - void showSellDialog(DataSet dataSet) |  |
| - void sendItemToItemOutPage(DataSet dataSet, int sellAmount) |  |
| - void loadDataToTable(ResultSet res) |  |
| + void searchData() |  |
| - void showErrorDialog(String header, String message) |  |
| + void createSubCategory() |  |