Programmer's Guide

UML Diagrams:

For Login Bean class:

```
LoginBean
-username: String
-password: String
-dbhost: String
-dbschema: String
-dbmsType: String
-dbmsPort: String
```
```
+LoginBean()
+getDbSchema(): String
+setDbSchema(String dbSchema): void
+getUsername(): String
+setUsername(String username): void
+getPassword(): String
+setPassword(String password): void
+getDbHost(): String
+setDbHost(String dbHost): void
+getDbmsType(): String
+setDbmsType(String dbmsType): void
+getDbmsPort(): String
```

For Main Class:

Main
-databaseBean: DatabaseBean
-loginBean: LoginBean
-message: String
-SchemaList: String
-userSchema: String
-schema: String
-renderSchema: boolean

+Main()
+init(): void
+processLogin()
+processLogout()
+getMessage(): String
+setMessage(String message): void
+getSchemaList(): List<String>
+setSchemaList(List<String> schemaList)
+getUserSchema(): String
+setUserSchema(String userSchema): void
+getSchema(): String
+setSchema(String schema): void
+getdatabaseBean(): DatabaseBean
+setdatabaseBean(DatabaseBean databaseBean): void
+getLoginBean(): LoginBean
+setLoginBean(LoginBean loginBean): void

For DatabaseBean Class:

DatabaseBean
-username: String
-password: String
-dbHost: String
-dbmsType: String
-dbSchema: String
-jdbcDriver: String
-tableName: String
-table: String
-dbmsPort: String
-errorMessage: String
-sqlQuery: String
-url: String
-connection: Connection
-message: String
-statement: Statement
-databaseMetaData: DatabaseMetaData
-resultSet: ResultSet
-tableListRendered: boolean
-columnListRendered: boolean
-messageRendered: boolean
-queryTypeFlag: boolean
-queryFlag: boolean
-queryRendered: boolean
-schemaList: String
-tableList: String
-columnList: String
-dataList: String
-columnNamesSelected: String
-numberOfColumns: int

+DatabaseBean()
+getSqlQuery(): String
+setSqlQuery(String sqlQuery): void
+isQueryRendered(): boolean
+setQueryRendered(boolean): void
+getErrorMessage(): String

```
+setErrorMessage(String errorMessage): void
+getDbmsPort(): String
+getConnection(): Connection
+setConnection(Connection connection): void
+getMessage(): String
+setMessage(String message): void
+getStatement(): Statement
+setStatement(Statement statement): void
+getDatabaseMetaData(): DatabaseMetaData
+setDatabaseMetaData(DatabaseMetaData databaseMetaData): void
+getResultSetMetaData(): ResultSetMetaData
+setResultSetMetaData(ResultSetMetaData resultSetMetaData): void
+getTableName(): String
+setTableName(String tableName): void
+getTable(): String
+setTable(String table): void
+getResult(): Result
+setResult(Result result): void
+getNumberOfColumns(): int
+setNumberOfColumns(int numberOfColumns): void
+getResultSet(): ResultSet
+setResultSet(ResultSet resultSet): void
+getUserName(): String
+getPassword(): String
+getDbHost(): String
+getDbmsType(): String
+getDbSchema(): String
+getJdbcDriver(): String
+getUrl(): String
+setUserName(String newUserName): void
+setPassword(String newPassword): void
+setDbHost(String newDbHost): void
+setDbmsType(String newDbmsType): void
+setDbSchema(String newDbSchema): void
+setJdbcDriver(String newJdbcDriver): void
+setUrl(String url): void
```

For File Upload Class:

FileUpload

-databaseBean: DatabaseBean
-rs: ResultSet
-uploadedFile: UploadedFile
-fileLabel: String
-fileName: String
-fileSize: long
-uploadedFileContents: String
-fileImport: boolean
-fileImportError: boolean
-filePath: String
-tempFileName: String
-dataContent: String
-facesContext: FacesContext
-relativeURL: String
-fileContentType: String
-errorMessage: String
-messageRendered: boolean
-statement: Statement
-resultSetMetaData: ResultSetMetaData
-columnList: String
-fileContents: File
-queryRendered: boolean
-numberOfColumns: int
-dataList: String
-rowCount: int
-columnCount: int
-columnRender: boolean
-chartPath: String
-renderChart: boolean
-categoricalData: String
-numericData: String
-renderRegressionResult: boolean
-corr: double
-intercept: double

-interceptStandardError: double
-tStatistic: double
-interceptPValue: double
-slope: double
-predictorDF: double
-residualErrorDF: double
-totalDF: double
-regressionSumSquares: double
-sumSquaredErrors: double
-totalSumSquares: double
-meanSquare: double
-meanSquareError: double
-fValue: double
-pValue: double
-slopeStandardError: double
-tStatisticPredictor: double
-pValuePredictor: double
-standardErrorModel: double
-rSquare: double
-rSquareAdjusted: double
-predictorValue: String
-responseValue: String
-regressionEquation: String
-renderCorrelationResult: boolean
-descriptiveStatsErrorMessage: String
-descriptiveStatsMessageRendered: boolean
-renderTabledata: boolean
-histogramErrorMessage: String
-histogramMessageRendered: boolean
-correlationErrorMessage: String
-correlationMessageRendered: boolean
-regressionErrorMessage: String
-regressionMessageRendered: boolean
-graphErrorMessage: String
-graphMessageRendered: boolean
-renderScatter: boolean
-scatterErrorMessage: String
-scatterMessageRendered: boolean

-loadColumnsList: String
-rs1: ResultSet
-rs_hist: ResultSet
-resultSetMetaData2_hist: ResultSetMetaData
-rs_corr: ResultSet
-resultSetMetaData_corr: ResultSetMetaData
-rs_regress: ResultSet
-resultSetMetaData_regress: ResultSetMetaData
-rs_scatter: ResultSet
-resultSetMetaData_scatter: ResultSetMetaData
-corrResponseValue: String
-corrPredictorValue: String
-scatterChartPath: String
-renderScatterResult: boolean
-ticker: String
-open: double
-high:double
-low: double
-close: double
-volume: double
-dividend: double
-transactionDate: String
-adjClose: double
-splitCoefficient: double

+processFileImport()
+resetButton()
+getUploadedFile(): UploadedFile
+setUploadedFile(UploadedFile uploadedFile): void
+getFileLabel(): String
+setFileLabel(String fileLabel): void
+getFileName(): String
+setFileName(String fileName): void
+getFileSize(): long
+setFileSize(long fileSize): void
+getRelativeURL(): String
+getUploadedFileContents(): String
+setUploadedFileContents(String uploadedFileContents): void

+setFileImport(boolean fileImport): void
+setRelativeURL(String relativeURL): void
+setFileImportError(boolean fileImportError): void
+getFilePath(): String
+setFilePath(String filePath): void
+getTempFileName(): String
+setTempFileName(String tempFileName): void
+getFacesContext(): FacesContext
+setFacesContext(FacesContext facesContext): void
+getErrorMessage(): String
+setErrorMessage(String errorMessage): void
+isMessageRendered(): boolean
+setMessageRendered(boolean messageRendered): void
+isQueryRendered(): boolean
+setQueryRendered(boolean queryRendered): void
+getDataContent(): String
+setDataContent(String dataContent): void
+getRs(): ResultSet
+setRs(ResultSet rs): void
+getRowCount(): int
+setRowCount(int rowCount): void
+isColumnRender(): Boolean
+setColumnRender(boolean columnRender): void
+getColumnCount(): int
+setColumnCount(int columnCount): void
+getRs1(): ResultSet
+setRs1(ResultSet rs1): void
+getTicker(): String
+setTicker(String ticker): void
+getOpen(): Double
+setOpen(Double open): void
+getHigh(): Double
+setHigh(Double high): void
+getLow(): Double
+setLow(Double low): void
+getClose(): Double
+setClose(Double close): void
+getVolume(): Double

+setVolume(Double volume): void
+getDividend(): Double
+setDividend(Double dividend): void
+getTransactionDate(): String
+setTransactionDate(String transactionDate): void
+getAdjClose(): Double
+setAdjClose(Double adjClose): void
+getSplitCoefficient(): Double
+setSplitCoefficient(Double splitCoefficient): void

For Descriptive Stats Bean Class:

DescriptiveStatsBean

-serialVersionUID: long
-columnSelected: String
-minValue: Double
-maxValue: Double
-mean: Double
-variance: Double
-std: Double
-median: Double
-q1: Double
-q3: Double
-iqr: Double
-range: Double

+DescriptiveStatsBean()
+DescriptiveStatsBean(): double
+getColumnSelected(): String
+setColumnSelected(String): void
+getSerialversionuid(): long
+getMinValue(): double
+setMinValue(double): void
+getMaxValue(): double
+setMaxValue(double): void
+getMean(): double

```
+setMean(double): void
+getVariance(): double
+setVariance(double): void
+getStd(): double
+setStd(double): void
+getMedian(): double
+setMedian(double): void
+getQ1(): double
+setQ1(double): void
+getQ3(): double
+setQ3(double): void
+getIqr(): double
+setIqr(double): void
+getRange(): double
+setRange(double): void
```

For Analysis Bean Class:

```
AnalysisBean

-columnCount: int
-rowCount: int
-message: String
-predictorValue: String
-responseValue: String
-columnRender: boolean
-renderSchema: boolean
-buttonDisable: boolean
-renderMessage: boolean
-renderReport: boolean
-renderTabledata: boolean
-renderCorrelationResult: boolean
-renderTablename: boolean
-renderRegressionColumn: boolean
-renderRegressionButton: boolean
-renderColumnListbutton: boolean
```

-renderRegressionResult: boolean
-renderNumberOfObservations: boolean
-renderNumberOfColumns: boolean
-numericData: String
-categoricalData: String
-columnSelected: String
-columnsList: String
-tableList: String
-columns: String
-list: String
-quartile1: double
-quartile3: double
-median1: double
-descriptiveStatsBeanList: DescriptiveStatsBean
-resultSet: ResultSet
-renderChart: boolean
-databaseBean: DatabaseBean
-resultSetMetaData: ResultSetMetaData
-xySeriesVariable: XYSeriesCollection
-xyTimeSeriesCollection: XYSeriesCollection
-predictorSeries: XYSeries
-responseSeries: XYSeries
-errorMessage: String
-corr: double
-intercept: double
-interceptStandardError: double
-tStatistic: double
-interceptPValue: double
-slope: double
-predictorDF: double
-residualErrorDF: double
-totalDF: double
-regressionSumSquares: double
-sumSquaredErrors: double
-totalSumSquares: double
-meanSquare: double
-meanSquareError: double
-fValue: double

-pValue: double
-slopeStandardError: double
-tStatisticPredictor: double
-pValuePredictor: double
-standardErrorModel: double
-rSquare: double
-rSquareAdjusted: double
-chartPath: String

+AnalysisBean()
+init(): void
+loadDatabaseBeanObject(): void
+getTables(): String
+renderTableList(): void
+getRegressionColumnNames(): String
+generateRegressionColumns(): boolean
+splitColumns(): String
+generateDescriptiveStatistics(): String
+calculateDescriptiveVariables(): String
+getColumnNames(): String
+displayColumnsforRegression(): String
+generateRegressionAnalysis(): String
+generateRegressionReport(): String
+calculateRegressionVariables(): boolean
+generateRegressionResults(): boolean
+loadSelectedHistogram(): String
+createScatterplotGraph(): String
+correlateVariables(): String
+resetButton(): String
+reset(): void
+getChartPath(): String
+setChartPath(String): void
+getColumnSelected(): String
+setColumnSelected(String): void
+getColumnsList(): String
+setColumnsList(String): void
+isColumnRender(): boolean
+setColumnRender(boolean): void
+getResultSet(): ResultSet
+setResultSet(ResultSet): void
+isRenderTablename(): boolean
+setRenderTablename(boolean): void
+getResultSetMetaData(): ResultSetMetaData
+getDescriptiveStatsBeanList(): DescriptiveStatsBean
+setDescriptiveStatsBeanList(DescriptiveStatsBean): void
+setResultSetMetaData(ResultSetMetaData): void
+getTableList(): String

```
+setTableList(String): void
+isRenderSchema(): boolean
+setRenderSchema(boolean): void
+getMessage(): String
+setMessage(String): void
+isRenderMessage(): boolean
+setRenderMessage(boolean): void
+getColumns(): String
+setColumns(String): void
+getColumnCount(): int
+setColumnCount(int): void
+getRowCount(): int
+setRowCount(int): void
+isRenderTabledata(): boolean
+setRenderTabledata(boolean): void
+isRenderRegressionColumn(): boolean
+setRenderRegressionColumn(boolean): void
+isRenderColumnListbutton(): boolean
+setRenderColumnListbutton(boolean): void
+isRenderRegressionButton(): boolean
+setRenderRegressionButton(boolean): void
+isButtonDisable(): boolean
+setButtonDisable(boolean): void
+getCategoricalData(): String
+setCategoricalData(String): void
+getNumericData(): String
+setNumericData(String): void
+getPredictorValue(): String
+setPredictorValue(String): void
+getResponseValue(): String
+setResponseValue(String): void
+isRenderReport(): boolean
+setRenderReport(boolean): void
+isRenderRegressionResult(): boolean
+setRenderRegressionResult(boolean): void
+isRenderNumberOfObservations(): boolean
+setRenderNumberOfObservations(boolean): void
+isRenderNumberOfColumns(): boolean
```

```
+setRenderNumberOfColumns(boolean): void
+getMedian1(): double
+setMedian1(double): void
+getQuartile1(): double
+setQuartile1(double): void
+getQuartile3(): double
+setQuartile3(double): void
+getXySeriesVariable(): XYSeriesCollection
+setXySeriesVariable(XYSeriesCollection): void
+getList(): String
+setList(String): void
+getErrorMessage(): String
+setErrorMessage(String): void
+getXyTimeSeriesCollection(): XYSeriesCollection
+setXyTimeSeriesCollection(XYSeriesCollection): void
+getXySeriesVariables(): XYSeriesCollection
+setXySeriesVariables(XYSeriesCollection): void
+getPredictorSeries(): XYSeries
+setPredictorSeries(XYSeries): void
+getResponseSeries(): XYSeries
+setResponseSeries(XYSeries): void
+getRegressionEquation(): String
+setRegressionEquation(String): void
+getIntercept(): double
+setIntercept(double): void
+getInterceptStandardError(): double
+setInterceptStandardError(double): void
+gettStatistic(): double
+settStatistic(double): void
+getInterceptPValue(): double
+setInterceptPValue(double): void
+getSlope(): double
+setSlope(double): void
+getPredictorDF(): double
+setPredictorDF(double): void
+getResidualErrorDF(): double
+setResidualErrorDF(double): void
+getTotalDF(): double
```

+setTotalDF(double): void
+getRegressionSumSquares(): double
+setRegressionSumSquares(double): void
+getSumSquaredErrors(): double
+setSumSquaredErrors(double): void
+getTotalSumSquares(): double
+setTotalSumSquares(double): void
+getMeanSquare(): double
+setMeanSquare(double): void
+getMeanSquareError(): double
+setMeanSquareError(double): void
+getfValue(): double
+setfValue(double): void
+getpValue(): double
+setpValue(double): void
+getSlopeStandardError(): double
+setSlopeStandardError(double): void
+gettStatisticPredictor(): double
+settStatisticPredictor(double): void
+getpValuePredictor(): double
+setpValuePredictor(double): void
+getStandardErrorModel(): double
+setStandardErrorModel(double): void
+getrSquare(): double
+setrSquare(double): void
+getrSquareAdjusted(): double
+setrSquareAdjusted(double): void
+isRenderChart(): boolean
+setRenderChart(boolean): void
+getCorr(): double
+setCorr(double): void
+isRenderCorrelationResult(): boolean
+setRenderCorrelationResult(boolean): void