UML Class
Quarintine Coders | May 13, 2020

MainWindow

- Ui::MainWindow:ui*;
- m_controller:Controller*
- dataColumn:int static
- graph:Graph

<<constructor>> MainWindow(Controller *controller, QWidget *parent = nullptr)
<<destructor>> ~MainWindow()
+ changeToAdmin():void
+changeToUser():void

- on_pushButtonLogin_clicked():void
- on_pushButtonResetLogin_clicked():void
- on_comboBoxChooseTeamName_activated(const QString &arg1):void
- on_pushButtonSortByTeamNames_clicked():void
- on_pushButtonSortByStadiumNames_clicked():void
- on_comboBoxChooseLeague_activated(const QString &arg1):void
- on_pushButtonSortByBallparkTypology_clicked() :void
- on_comboBoxChooseRoofType_activated(const QString &arg1):void
- on_pushButtonSortByDateOpened_clicked():void
- on_pushButtonSortBySeatingCapacity_clicked():void
- on_pushButtonSortByGreatestFromCenter_clicked():void
- on_pushButtonSortByLeastFromCenter_clicked():void
- on_pushButtonResetStadiumsTable_clicked():void
- resetSortLabel(QString label):void
- fillStadiumsComboBoxes():void
- on_pushButtonUserLogout_clicked():void
- on_pushButtonResetAllSouvenirs_clicked():void
- on_comboBoxChooseStadium_activated(const QString &arg1):void
- resetSouvenirScreenLabels():void
- on_tableviewAllSouvenirs_activated(const QModelIndex &index):void
- on_pushButtonDeleteSouvenir_clicked():void
- on_pushButtonEditPrice_clicked():void
- on_pushButtonAddNewSouvenir_clicked():void
- on_pushButtonReturnToMaintenanceScreen_clicked():void
- on_pushButtonReturnToMaintenanceScreen_2_clicked():void
- on_pushButtonChangeToSouvenirs_clicked():void
- on_pushButtonChangeToStadiums_clicked():void
- on_pushButtonResetAllStadiumsTableADMIN_clicked():void
- on_comboBoxChooseTeamNameADMIN_activated(const QString &arg1):void
- on_tableViewAllStadiumsADMIN_activated(const QModelIndex &index):void
- on_pushButtonEditData_clicked():void
- on_pushButtonBFS_clicked():void
- on_comboBox_activated(const QString &arg1):void
- on_pushButtonDFS_clicked():void
- on_pushButtonDFSBFS_clicked():void
- void on_pushButtonMST_2_clicked():void
- hideInputFieldsADMIN():void
- on_pushButtonUploadNewStadium_clicked():void
- on_pushButtonReturnFromDFSBFSMST_clicked():void
- on_pushButtonUploadNewStadiumDistances_clicked():void
- on_pushButtonLogoutFromAdminMaintenance_clicked():void
- on_pushButtonToUserScreen_clicked():void
- on_pushButtonReturnFromShortestTripScreen_clicked():void
- on_pushButtonReturnFromCustomTripScreen_clicked():void
- on_pushButtonLogoutFromUserSelection_clicked():void
- on_pushButtonToDFSBFSMSTScreen_clicked():void
- on_pushButtonToShortestTripScreen_clicked():void
- on_pushButtonToCustomTripScreen_clicked():void
- on_tableViewCustomTrip_activated(const QModelIndex &index):void
- on_pushButtonResetDisplaySelectedTrip_clicked():void
- on_pushButtonCreateCustomDirectTrip_clicked():void
- on_pushButtonDodgerStadium_clicked():void
- on_pushButtonMarlinsPark_clicked():void

Controller

- m_database:QSqlDatabase

<<constructor>> Controller(Controller& controller)
<<destructor>> ~Controller()
+ createTables():void
+ loadStadiums():void
+ deleteSouvenir(QString souvenir, QString stadium):void
+ editSouvenir(QString stadium, QString souvenir, double price):void
+ createSouvenir(QString college, QString souvenir, double price):void
+ getSouvenirsQueryModel(QString query);QSqlQueryModel*

Graph

- getOrder():QVector<QString>
- nameVector:QVector<QString>
- adjList:QVector<Vertex>

<<constructor>> Graph()
<<destructor>> ~Graph()
- addEdge(QString vertex1, QString vertex2, int weight):void
- addVertex(QString vertex):void
- vertexExists(QString vertex):bool
- getWeight(QString vertex1, QString vertex2):int
- printAdjList():void
- DFS(QString vertex):void
- BFS(QString vertex):void
- Dijkstra(QString vertex):void
- MST(QString vertex):int
- recursiveDijkstra(QString vertex, int timesToRecurse):void
- startSpecificRoute(QString vertex, int timesToRecurse):void
- getTotalDistance():int
- getDistance(QString vertex):int
- resetDistance():void
- loadGraph(Graph &g):void
- numberOfVertex:int
- totalDistance:int
- location:int
findSmallestEdgeIndex(QVector<Edge> *ptr):int
findVertexIndex(QString vertex):int
checkAvailableVertices(QString vertex):bool
checkAvailableVertices(int adjListIndex):bool
DFS(int index):void
BFS(int index):void
isInList(QString vertex):bool
setReverse(QString vertex1, QString vertex2):void
findSmallest():int
recursiveDijkstra(QString vertex,int position, int length):void
startSpecificRoute(QString vertex, int position, int length):void
clearVisitedVertex():void
clearEdgeType():void

«struct» Edge

- destination:QString
- weight:int
- type:EdgeType

<<enumeration>> EdgeType

- DISCOVERY
- BACK
- CROSS
- REPEAT
- UNDISCOVERED

«struct» Vertex

- adjacent:QVector<Edge>
- name:QString
- visited:bool
- distance:int

Compare

+ operator(const Vertex& first, const Vertex& second):bool

Login

- username:QString
- password:QString

+ Login(QObject *parent = nullptr):explicit
+ getUsername():QString const
+ setUsername(const QString & username):void
+ getPassword():QString const
+ setPassword(const QString &password):void

«signal» signals

+ usernameChanged():void
+ passwordChanged():void

StadiumToVisit

- originatedStadium:QString
- destinationStadium:QString
- distance:int

- StadiumToVisit();
- getOriginatedStadium():QString
- getDestinationStadium():QString
- getDistance():int
- setOriginatedStadium(QString originatedStadium):void
- setDestinationStadium(QString destinationStadium):void
- setDistance(int distance):void