

# Software Engineering Project

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# Outline

# Tools and resources

## IDE

- Qt 5.1 with OpenGL
- Matlab 2013Ra

## Group meetings and coordination

- Trello
- Git and Bitbucket

## Database

- MySQL Server 5.6
- PostgreSQL

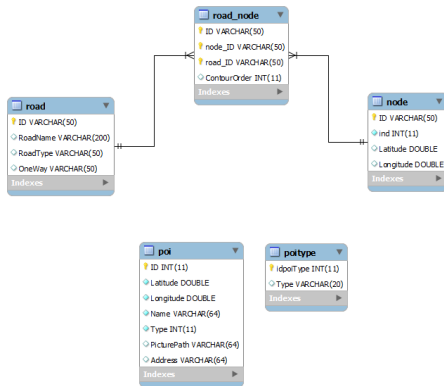


Figure : Database tables

# C++ Implementation

# Creating the map

# The shortest path

# Route path

# Heuristics

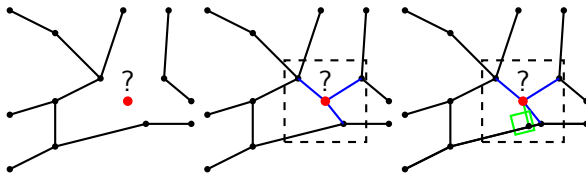


# Normalization and displaying

# Selecting a route

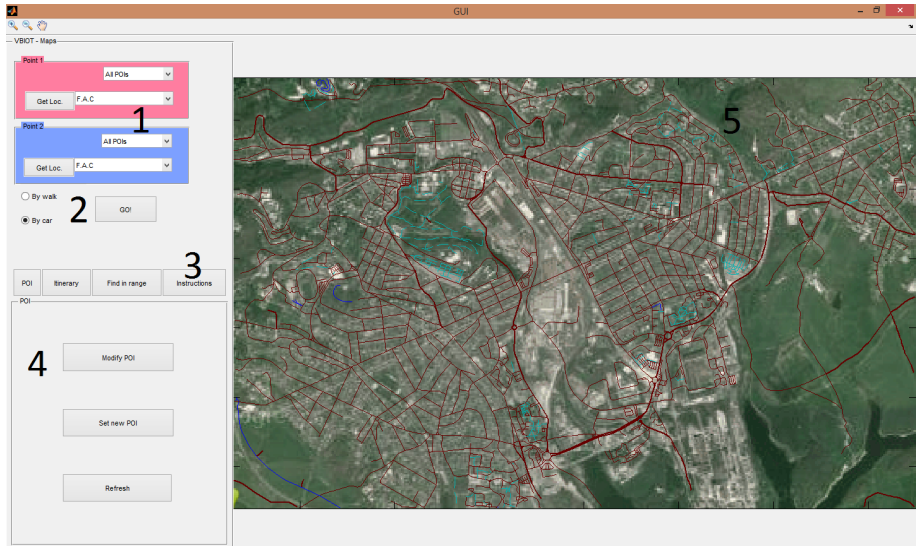
# Matlab implementation

- Data Structure
- Shortest Path



**Figure :** Finding the shortest point/projection for the random point on window domain

# Graphical User Interface (GUI)

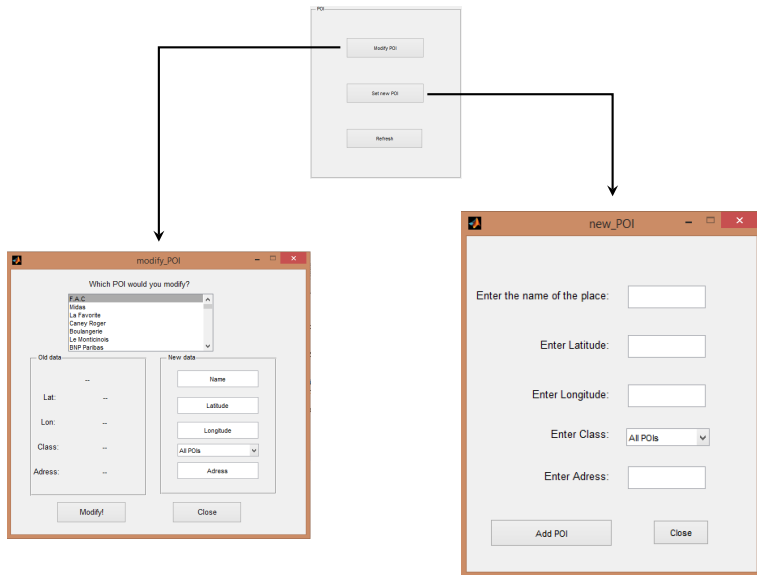


# Insertion of points

- Point from a list
- Filter by class
- Get Location from the map
- Walk / Car
- GO!

The image shows a web application interface for inserting points. It consists of two main panels, 'Point 1' (pink) and 'Point 2' (blue), each containing a 'Get Loc.' button and a dropdown menu showing 'F.A.C.'. Below these panels are radio buttons for 'By walk' and 'By car' (selected), and a 'GO!' button.

# Manipulating Points of interest



# Itinerary

- Adding a third point
- Getting and storing the distance
- How it works
- Cost of time

The screenshot shows a window titled "Itinerary". Inside, there is a green rectangular area labeled "Point 3". Within this green area, there is a dropdown menu currently showing "All POIs". Below this, there is a button labeled "Get Loc." and a text input field containing "F.A.C.". Below the green area, the text "Maximum distance: (in meters)" is followed by a text input field containing "--". At the bottom of the window is a button labeled "GO!".

# Find in a Range

- Using Point 1 data
- Selection of classes
- Distance
- Slow process

Find in a range

Select your current location by using POINT 1 in the upper left corner

What do you want to find?

Maximum distance: (in meters)



# Generation of the instructions

- Generating instructions from shortest path
- Setting a scroll bar
- Exporting this data
- Default text when missing data

