

# Trial Day Tasks

## Part 1 – SQL

These tasks will use a database provided on this website:

[https://www.w3schools.com/sql/trysql.asp?filename=trysql\\_select\\_all](https://www.w3schools.com/sql/trysql.asp?filename=trysql_select_all)

In the right column you find a list of all available tables in the database. Enter your query under 'SQL Statement' and test it by clicking 'Run SQL'.

Please save a copy of your SQL queries within this file, as they aren't saved in the browser.

1. Display all customers not located in Germany.
2. Display all orders that are shipped via United Package for all customer with an ID greater than 60.

## Part 2 – Development

As you may know, most validation documents require many signatures from a number of different people (especially in our company).

Unfortunately, these people don't all share one office but instead are spread all over the campus.

In order to not waste too much time with pointless running around,

one of our developers was given the task to help us with this problem by determining the optimal path for the signature run.

You can find the initial draft of the code to solve this problem in the attached file.

1. Add further comments to the code and briefly present the code.
2. The following map will show you the position of all the people (green dots) which need to sign the Validation Plan of our next release. Run the code using the correct parameters to output the optimal route for this task (disregard the starting position).
3. The code currently calculates the linear distance when calculating the distance between two positions. Unfortunately, our paraglider is not available at the moment. Therefore, we have to walk to the offices along the given paths of the campus. Assume that the grid represents the existing campus paths which you can move along on. Rewrite the code according to this condition.

