**Successful online learning for
sustainable last mile logistics**

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## Practical activity #5 - ANSWERS

## Chapter 3

## Student EQF level: 4

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## Instructions

This activity might be done with different input data than presented in the SUSMILE practical activity. This type of exercise should help the teachers and students implement real life facts into the lessons, flexibility of the data is recommended.

## Notes for teachers

**Exercise 1,2:**

This activity aims mainly at student´s aweness of their future professional field and expertise in its practical usage. At the same time it enhances their independence and evaluation skills.

As the activities are place and time related, the answers to the question may be different throughout longer time period. The results presented in this answer sheet might somewhat change in course of time.

Students and teachers can come with their own ideas depending on the students knowledge and independence. They can determine the longest and shortest distances, what distances are suitable for cargobikes and which are too far, on what conditions can you service the companies using alternative means of transport etc.

**Exercise 1**

After entering the start and end locations, defining the route requirements and the possibility of using or not using the toll sections, different routes/distance/time will be searched in the map portals.

Example

Search for distribution routes Prague (automatic point in the city centre) – Kladno

1.1 Route using toll sections:
When requesting to find a fast route:
- Travel time **32 minutes**
- distance travelled 31 km

When requesting a short route search:
- journey time 33 minutes
- distance travelled **30 km**


1.2 Route without toll sections
When requesting to find a fast route:
- journey time **36 minutes**
- distance travelled 34 km


When requesting a short route:
- journey time 36 minutes
- distance travelled **31 km**


Evaluation
The best result was achieved for the route using toll sections and for the request to find a fast route with a travel time of 50 minutes.


**Exercise 2**
Evaluation of map portals
A suitable user environment for entering routes into map portals is important for distribution planning.

Google Maps:
- Less clear route parameter input
- display of up-to-date information on traffic situation and restrictions
- search for the fastest and shortest route

Maps.cz:
- clear route parameter input
- display of up-to-date information on traffic situation and restrictions
- search for the fastest and shortest route

Waze:
- impossible to enter route parameters
- display of very up-to-date information on the traffic situation and restrictions
- search for the best (fastest) route
- transfer the route to the Waze navigation app

General evaluation of distribution routes
According to the assumptions, it was confirmed that the shortest driving time is on the routes leading along the most important roads, which are usually toll roads, in all the routes Prague - Beroun, Prague - Kladno, Prague - Mělník.
Therefore, the rule is that it is better to take a longer route on more important roads at a higher speed than to take a shorter route at a lower speed on less important roads.