

# VIA Bus

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## The Case for SEP1, Autumn 2016

VIA Bus is a company located in Horsens, Denmark with Trip Driver as the manager. At VIA Bus you can either rent a bus with a chauffeur - driving to a destination of your choice, or travel by bus to one of the predefined locations, i.e. a few European countries and some Danish sites and events.

VIA Bus is in need of some kind of system to keep track of the tours, chauffeurs, bus routes and customers, and therefore the manager Trip Driver decided to contact us to create the system for him. We arranged an interview and talked to Mr Driver about his requirements.

## The Interview

***"Please tell us about your company, Mr Driver."***

Trip Driver: *"Just call me Trip, we are not so formal here at VIA Bus."*

***"OK, Trip... Are you a travelling agency with bus travels?"***

Trip Driver: *"We are much more than just that. We see ourselves as specialists in bus tours so we offer both travels and trips. Currently we have one-day trips to Flensburg, Copenhagen, Skagen, Djurs Sommerland, and Legoland, plus occasionally other destinations when we feel that there could be a market for it. In the school holidays, we arrange one-week travels with all included. The service that we are especially proud of is our bus-and-chauffeur service."*

***"What is 'bus-and-chauffeur'?"***

Trip Driver: *"Thank you for asking. There is a big market for bus tours and we arrange it exactly how the customer wants it. A bus and a chauffeur will be reserved for a specific trip, for example a school trip, a company visit, a trip to an event or different locations the same day. A minibus or a luxury bus is often reserved for small or larger groups going to Tivoli, bowling centres, to parties or similar. Sometimes our party bus is reserved the whole day for a bachelor party, and sometimes for luxury transportations or trips – better and more extravagant than limousines, don't you think?"*

***"Well... Isn't it expensive?"***

Trip Driver: *"Absolutely not."*

***"What about the driver? Is he a part of your staff?"***

Trip Driver: *"Some of our chauffeurs work here full time, but we are also in contact with some other chauffeurs, who we only call at times when extra drivers are needed."*

***“Full time drivers. Don’t they have a lot of wasted time, when there are not any trips?”***

Trip Driver: “Yes, and no. Our chauffeurs are all specialists in their field, so besides driving they also clean the busses, drive them to service, and sometimes even fix small problems with the busses. In addition, they of course also spend some time writing down reservations from customers and prepare routes for trips. However, it is true that it is a problem for us that we pay a full salary even when a chauffeur is not driving or working with any of the other related jobs I just mentioned. This is not easy to fix without some kind of computer program to optimise the use of our chauffeurs. In other words, we could really use a better overview of when each of the chauffeurs is available.”

***“What kind of system do you have in mind?”***

Trip Driver: “Oh, I don’t know much about these kinds of things, but I’m expecting some sort of standard looking program that we can use with a keyboard and mouse. You know the kind: Some fields to enter the data and some buttons, menus or tabs to do things: Saving and searching and what have you. We don’t want any accidents with unsaved data.”

***“So far I have understood that the system should help with determining when a driver is available for a trip.”***

Trip Driver: “Yes, and we would also like to have the system handle all our reservations for travels, trips and bus-and-chauffeur services.”

***“How do customers reserve a travel?”***

Trip Driver: “You make a reservation for the two kinds of tours; travels and one-day trips just like at any other travel agency. Depending on the number of passengers we then select a suitable bus and find an available chauffeur.”

***“What about bus-and-chauffeur?”***

Trip Driver: “Here you reserve a bus and a chauffeur for a day, or maybe just a couple of hours, by specifying your destination, or destinations. Sometimes we provide food like breakfast or lunch in the bus, or reserve a restaurant for dinner. In the party bus you can also reserve a party guide, and of course use everything available in the bus. Right now we offer a discount if you are a frequent customer of any of our travels, trips or bus-and-chauffeur services.”

***“Do you keep track of your customers?”***

Trip Driver: “Normally we write down at least the name, address and phone number for the customer making the reservation. For tours like travels and one-day trips all passengers are registered with their name, address and birthday. Sometimes we also get an email address if he or she wants a newsletter from us. I have to say that it is not easy to locate a frequent customer, especially if it is a company.”

***“What is the difference between a customer and a passenger?”***

Trip Driver: “A customer is the person paying for the reservation, typically also the person making the reservation. A reservation for a one-week travel or a one-day trip is normally made for more than one passenger, for instance a family, and the customer is then typically one of the passengers on the tour. We register the customer and all the passengers for a reservation like that. A customer for a bus-and-chauffeur service may be a private person, a company or a school, and in some cases a secretary will be making the reservation in which case we write down the secretary as the customer. This will be OK as long as we also know the company name in order to give a later discount to the company and not only to another trip reserved by the same secretary.”

***“OK, I see. What kind of data do you then store for drivers?”***

Trip Driver: “We actually like to call them chauffeurs instead of drivers. The plan is to have a new system that is independent from our payroll system. From your system we would like to have their names, their address, the same 5-digit employee-id that is also used in our payroll system, when they are on a trip, when they are available, and their wishes for trips... and actually also their phone number and email address, because that is the way we contact them.”

***“Sorry about the driver-thing. You said something about wishes for trips.”***

Trip Driver: “Yes, we have one chauffeur who will not drive the party bus, one who wishes to have only one-day trips and others who like to take the summer week travels, in particular my oldest son Speed. We want to fulfil their wishes because a happy chauffeur gives happy bus passengers.”

***“...Speed Driver?”***

Trip Driver: “Yes, that’s my son, the best chauffeur we have – always on time. He says he likes these travels because he sees them as a sort of vacation for himself as well.”

***“Would you like to have an online Web system where customers can make a reservation on their own?”***

Trip Driver: “No. We would like to have a system to run on the front desk computer only. No website, and only me and my employees using the program. Oh, and one more thing, my niece tells me she’s learning something called Java, and if you could make the system using that, then I think it would be very helpful. Can you do that?”

***“No problem. We can make a single user system in Java for you.”***

Trip Driver: “Single user? There are more employees who should use the program – but of course not at the same time.... and I trust all my employees, so don’t waste time making a login with passwords and all that.”

***“How do you set the prices for at trip, Trip?”***

Trip Driver: *“The price for a seat depends on the duration of a trip and the distance driven, and is independent of the passengers’ age. Prices for extra services like food, accommodation and tickets, for example to Legoland, are normally different for adults and children. We have an idea for prices for standard bus-and-chauffeur services, but we set the prices for each of these services depending on the trip and extra services. There is no standard way to set the price and it would be perfectly OK for me if the system allows us to type in the price for each reservation.”*

***“Let me try to sum this up: You need to be able to register your tours, both your own designed trips and travels, and trips renting a bus with driver... sorry chauffeur, register customers including their email address, register passengers for your own tours, register reservations including date and time, see available chauffeurs for a tour, find a suitable bus for a tour, and chauffeur wishes for tours. Am I missing anything? I suppose you need to be able to cancel or change a reservation.”***

Trip Driver: *“Certainly, and we also need to be able to find the frequent customers or companies to give them a discount for their next reservation. Maybe, if possible, we could get a list of a chauffeur’s day, when he is on each trip, approximately where to find him on the trip and if he is in between trips.”*

***“Do you keep track of when you are where in all your trips?”***

Trip Driver: *“For the one-week travels and one-day trips we have approximate routes and schedules, some of which are pick-up/drop-off stops. For the bus-and-chauffeur services, we always have approximate time for departure, arrival to destination or destinations, and arrival back to our bus terminal in Horsens. Sometimes the route can be very precise and other times we know less about it.”*

***“I think we have all that we need for now to start making your system. Thank you for your time, Mr ... Trip.”***

Trip Driver: *“No problem, and don’t hesitate to return with any questions you might have.”*

## SEP1 Assignment hand-in

**Deadline is Friday 16<sup>th</sup> of December at 12:00 Noon.**

**Hand in the following to WISEflow in the final hand-in:**

- The project report and appendices in PDF format
- The process report in PDF format
- All diagrams in some image or PDF format
- All source code
- Javadoc documentation of source code

**Content of the reports:**

- Project report
  - Cover page with names and student numbers of all participants.
  - Table of contents
  - List of figures and tables
  - Abstract
  - Introduction
  - Analysis (Requirements, Use Case Diagram, Use Case Description and Activity Diagram of essential Use Cases)
  - Design (Class diagram, Sequence Diagram of at least one important method or Use Case)
  - Implementation
  - Test
  - Results
  - Conclusion
  - List of References
  - Appendices
    - User guide to the system
    - Use case descriptions for all use cases
    - Activity diagrams for all use case descriptions
    - Design class diagram if not shown in its entirety in the report
- Process report
  - Group policy
  - SWOT analysis for each group member and for the group as a whole, identify how you have taken your SWOTs into consideration when drafting your group policy
  - Considerations you had before writing the project report, process report and user guide (target audience, writing style, level of formality)
  - *Detailed* list of tasks done in the group with name(s) of the group member(s) having done the task
  - Summaries of meetings with the supervisors
  - Bloom's forms