

Guided Technology Project

Ger's Garage

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Abstract

Acknowledgements

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Chapter I: Introduction

Project Brief

Due the increasing on your demands of services, the mechanic Ger is demanding the development of a system to manage the maintenance of all the types of vehicles he works, like motorbikes, cars, small vans and buses, and also to control its stock. The system will also carry about the quantity of staffs and make sure that each one will not work more than your capacity on each day.

The system will allow Ger's customers to register on the system and book their appointments for service or check-up during the weekdays and Saturday. There will be some types of appointments, like annual service, major fault, repair, major repair, etc.

Registered costumers will be providing basic contact information about themselves and about the car, they need to able to see details about the last time its vehicle was booked.

There will be admin access, so Ger can access and manage each week roaster and allocate each mechanic for the bookings, making sure each one cannot work on more than 4 bookings per day depending on the type.

The system will care about the costs of each booking and will be able to print a invoice with the details of the visit and costs of the repair.

Why is a good project?

It is a good project because it uses a real and kinda generic scenario to apply and implement almost everything that was taught during the higher diploma course. The proposed theme can be applied for most of the small business cases with not too much rework to adapt for them.

Moreover it motivates us to go deeper with the learnt topics, because otherwise the implementation of this final project cannot be possible.

Main goal

Create a web-project with restful backend to book services in a small garage.

Objectives

- Plan and organize a project
- Development of a restful backend
- Modelling a SQL DB to hold the system requirements
- Development of a front-end to access the restful services
- Fulfil at least the minimum requirements of the project
- Write a final report over the project

Areas to cover

- Java
- Spring Boot Framework
- MVC programming
- SQL
- Relational DB Modelling
- MySQL DB
- HTTP
- JavaScript
- CSS
- Angular
- Angular + Bootstrap
- Restful Services
- Research methodology
- Gantt charts

Personal challenges

The main challenge will be get used again to Angular and Bootstrap, I had some experience with them few years ago, but there are some new versions since them.

Another challenge will be time management, because I am the responsible for planning and keep the project on the deliveries.

Methodology

This guided project will be developed using concepts of agile method. There is the planning period and then the developing process, dealing with different parts of programming with time for developing and integration with the following steps. In some parts there will be parallel developing to enjoy the common areas or depending areas. There is a final goal/minimum product to be developed, but there is also time to research and do extra over the requirements.

This approach is more flexible, it allows that if on any part of the developing process something happens it can be rescheduled and replanned.

