



**Linnéuniversitetet**  
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## Assignment 1

### Personal Plan And Reflection



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# 1 Task 1 personal planning and reflection

## 1.1 Project objective and purpose

the objective of task 1 is to create a system and insure that the system is functioning properly

and completing the partially implemented back end (server).

The purpose of task 1 is to achieve:

- Create a book, modify a book, remove a book.
- Covert the book to JSON objects
- View the JOSN objects on web.

## 1.2 Subtask A Books:

### **Plan:**

Estimated time: ~1 hour.

to use java language as the project programming medium and ATOM as a text editor tools. The objective is to create a book list which can add, modify remove books then convert it to a JSON object and view it on the terminal vagrant when localhost9090 is used.

### **Implement:**

Estimated time: 2 hour.

In the class books I have created a number of methods which are get and set for id, title, author, genre, publish date, price and description for the book. The class *GetBooksResource* have the *getBooks* that contains the fictive objects, and also has an Array List which saves the objects created. array list allows easier implementation, flexibility which means it can be resize or downsized it term of size which can save memory for the processor and save as many objects as we could. The output is printed using the *println*. Vagrant reads the *GetBooksResource* which will read the output and prints it in the terminal and make it available in the local host server.

**Reflect:**

Estimated time: 30 minutes.

My plan was to implement the methods within the time I estimated but it took longer than needed because of my limited experience using vagrant and a text editor I had some problems during the development process which lead to around an hour delay.

### 1.3 Subtask B JSON.

**Plan:**

Estimated time: ~1 hour.

Convert the books to JSON objects and view it on the terminal vagrant when localhost9090 is used.

**Implement:**

Estimated time: 2 hours.

Using the JAVA API which has a simple code on how JSON process should be generated in java using and importing Jason package and put it on in the class path.

I created a method in the class *GetBooksResource* which convert the Books to JSON objects and prints it out as a string. Vagrant reads the *GetBooksResource* which will read the output and convert it to JSON then prints it in the terminal.

**Reflect:**

Estimated time: 1 hour.

My plan was to implement this method within the time I estimated went according to the plan but I faced some problems regarding the JSON converting method which manually convert the books to JSON object. This delayed the implementation by almost 2 hours.

### 1.4 Subtask C Web.

**Improvement Strategies**

1. planning and organizing:

estimate the time needed on each task more effectively and efficiently and start planning more precisely and accurately. Also Improving the code written which can make it fixable, easier to upgrade, implement new methods.

## 2. JSON object mapper () write Value ()

Use the method TOJSON provided <http://www.mkyong.com/java/how-to-convert-java-object-to-from-json-jackson/> which is easier to implement, shorter and efficiently instated of manually converting each book object.

### **Plan:**

Estimated time: ~1 hour.

view the JSON objects When calling the URL <http://localhost:9090/api/books> the list of books should be outputted with *System.out.println*.

### **Implement:**

Estimated time: 1 hour.

After implementing the improvement strategies, the code is easier to read. Also, the planning was efficiently which saved more time.

To view the JSON objects converted from the book list we need to return the output to String with “[“,”]” to identify the JSON objects and sperate them.

### **Reflect:**

Estimated time: 1 hour.

The plan went thoroughly and the time spent on it was a bit off the time I anticipated around 20 minutes off. My improvement to estimate, plan and organize the implementation helped even with my inexperience that could lead to delays.

## 2 Vision Reflection

Estimated time: 1 hour.

The vision document took a while to write for what I anticipated. It was my first time writing a vision document in which I had to do research and read about how to write a vision document. Because of my lack of experience in programing a new type of system (the library system) and using using text editor, vagrant I also had to understand what am dealing with and how does it function in order to elaborate more information about the project and give a clearer information about the system description. The vision document took 6 hours in total to finish.

### 3 Project plan Reflection

Estimated time: 3 hour.

The most difficult part of the assignment in my opinion and what took the most time. it is the first time I write a project plan, I was completely lost in how to structure the report there was no general guide line on how to structure the report. As a result, I had to much research, ask the teachers on how to write the project plan and which structure to include in the report and what to write in particular. I read 4 chapters in the book to understand software management. Also, I used upedu.orb which has sample or project plans to understand the structure. The project plan took a total of 4 days to complete.