

datec

Fully Owned Subsidiary of Vodafone Fiji

# Final Report



TECHKNIGHTS

Project: Electronic Order Processing Form

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## Acknowledgment

Firstly, I would like to express my deepest gratitude to our project supervisors, Mr. Amendra Chand and Asheel Singh for their continuous support in our project. We would like to thank in particular Mr. Amendra Chand for his enthusiasm, motivation, tolerance and immense knowledge. His guidance was instrumental towards the success of our project. Furthermore, we would like to acknowledge Mr. Dinesh Kumar's support towards our project and giving us all the relevant information required to complete this project. We thank them for their understanding and encouragement.

## Problem Description

The current Customer Order Purchasing system utilized by our client, Datec Fiji Ltd., is manual with a lot of paper work and running around. To begin with, customer orders are filled in costing sheets and Order Processing forms (OPFs) by Account Managers. These forms then traverse through the Channel of Approval: Quality Assurance, Department Manager, Chief Finance Officer and General Manager to obtain approvals. If an issue arise in the Channel of Approval, the OPF is sent back to the Account Manager for amendments, and then resent through the same channel. After gaining all the approvals, the required stock is released for delivery to the customer.

There are many disadvantages to using this current manual order processing system. Firstly, the system is slow and has a lot of risk to misplacing documents. Mishandling or misplacing the forms is a constant danger since the form change hands multiple times until finally approved. Also, no automated notifications or emails are set up to remind the staff about any OPF awaiting their action. Furthermore, the process beginning from creation of the OPF by Account Manager to the channel of approvals takes considerable amount of time to complete and slows down the business operations. Accessing the OPF information on time and making timely decisions can be a challenge for senior staffs. In addition, any issue arising or amendments recommended within the Channel of Approval increases the real risk of the product delivery falling behind schedule, which in turn, risks damaging the company's reputation with its clients.

Our project aims primarily to implement an operation model of Electronic Order Processing system which will be void of the problems discussed above. In a nutshell, our system aims to be fast, efficient, reliable, user-friendly, and to prevent loss of productive hours of staffs by information on OPFs readily available and accessible in the system.

## Domain Specific Background

Our client, Datec Fiji Limited, is a large company with a longstanding reputation as a leading computer hardware and software retailer, with also emphasis in system maintenance, in the Pacific region. It is now a fully owned subsidiary of Vodafone Fiji Limited, which is a leading mobile communication and internet service provider in Fiji. The staff of Datec Fiji Ltd., are specialized in Computing, Information System and Database Management and provide I.T. solutions to other industries, companies and firms.

As a business, our client, Datec Fiji, aims to streamline its business operations in terms of time lost in processing customer orders. In addition, keeping the clients in loop with the status of their purchase order is a big advantage towards retaining clients. Moreover, since the proposed electronic system will be utilized by staff of managerial positions, the system will be very user-friendly and require minimal skill in computing. Only the staffs of Datec will have high-level security clearance in the system, while guests can only view their purchase orders. The administrator will have full access to the system and will be required to have competency in ASP.net.

There are quite a few advantages for our client with regards to implementing an electronic system. Firstly, the electronic system will hasten the processing period of customer orders, thus increasing the profitability of the business. Since only Datec staff will have access to makes changes in the system, then the system will be guaranteed to be secure and customer detail will be kept confidential.

## Original and Final Plan

(\*Gantt chart attached in Appendix)

Figure 1 Original Timeline

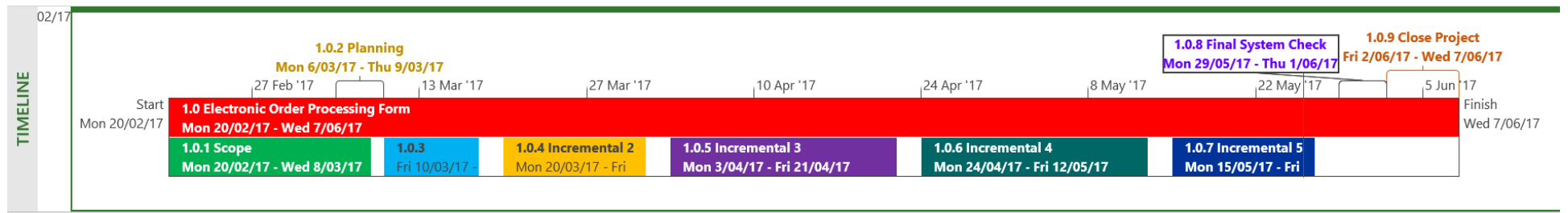
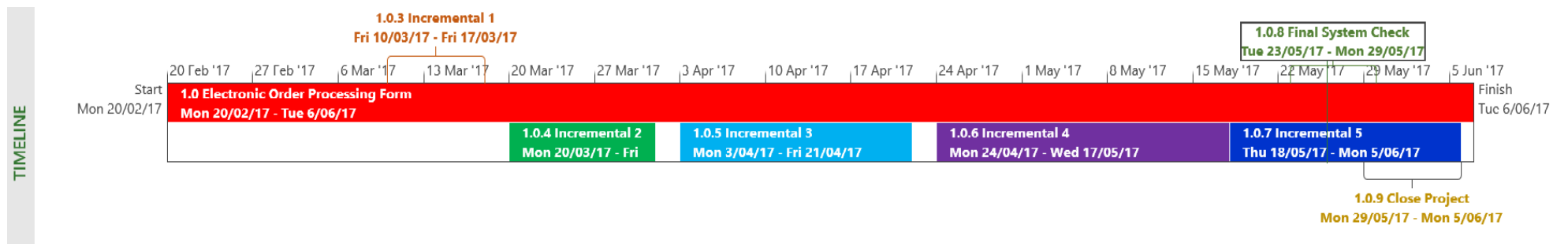


Figure 2 Finalized Plan



## Comparison between Revised Plan after Mid-Term Review and Finalized Plan

Figure 3 Revised Plan after Mid-Term Review

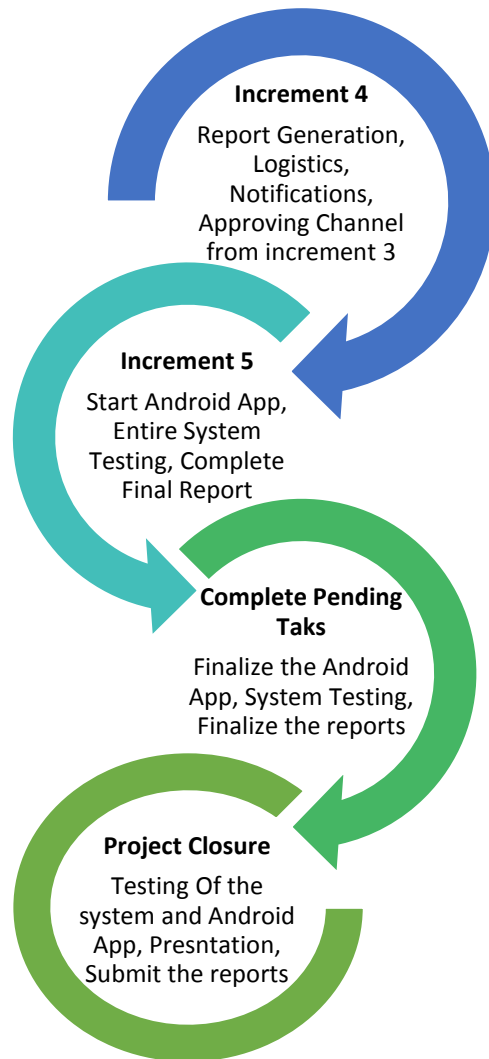
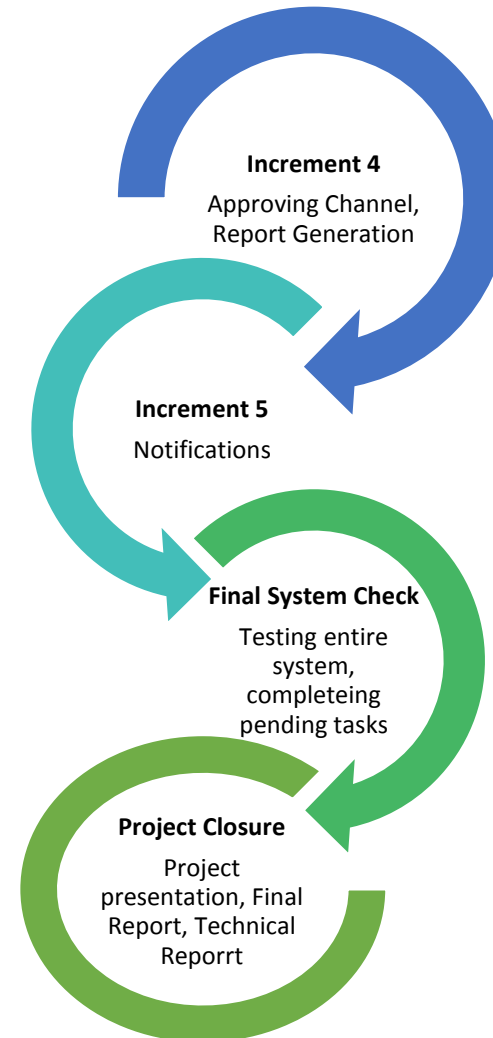


Figure 4 Finalized Plan after Mid-Term



**These were the things changed from the Revised Plan after Mid-Term Review.**

**Changes are portrayed in the Finalized Plan.**

The revised planned contains the implementation of Logistics portal and Android Application.

The Finalized Plan of the system does not has the Logistic Portal and the Android App.

Since the Logistics and Android App was dropped the team got enough time to plan the rest of the system.

In increment 4 only two portals were planned and successfully implemented.

Since Notification was bit challenging the team allocated plenty time for that.

## Changes and Justification

### Changes

### Justifications/Reasons

Project Closure  
Before: 7<sup>th</sup> of June  
Now: 5<sup>th</sup> of June

In the new timeline the project closure date has changed. The reason for this change is because the system has to be assessed by the client before the final presentation.

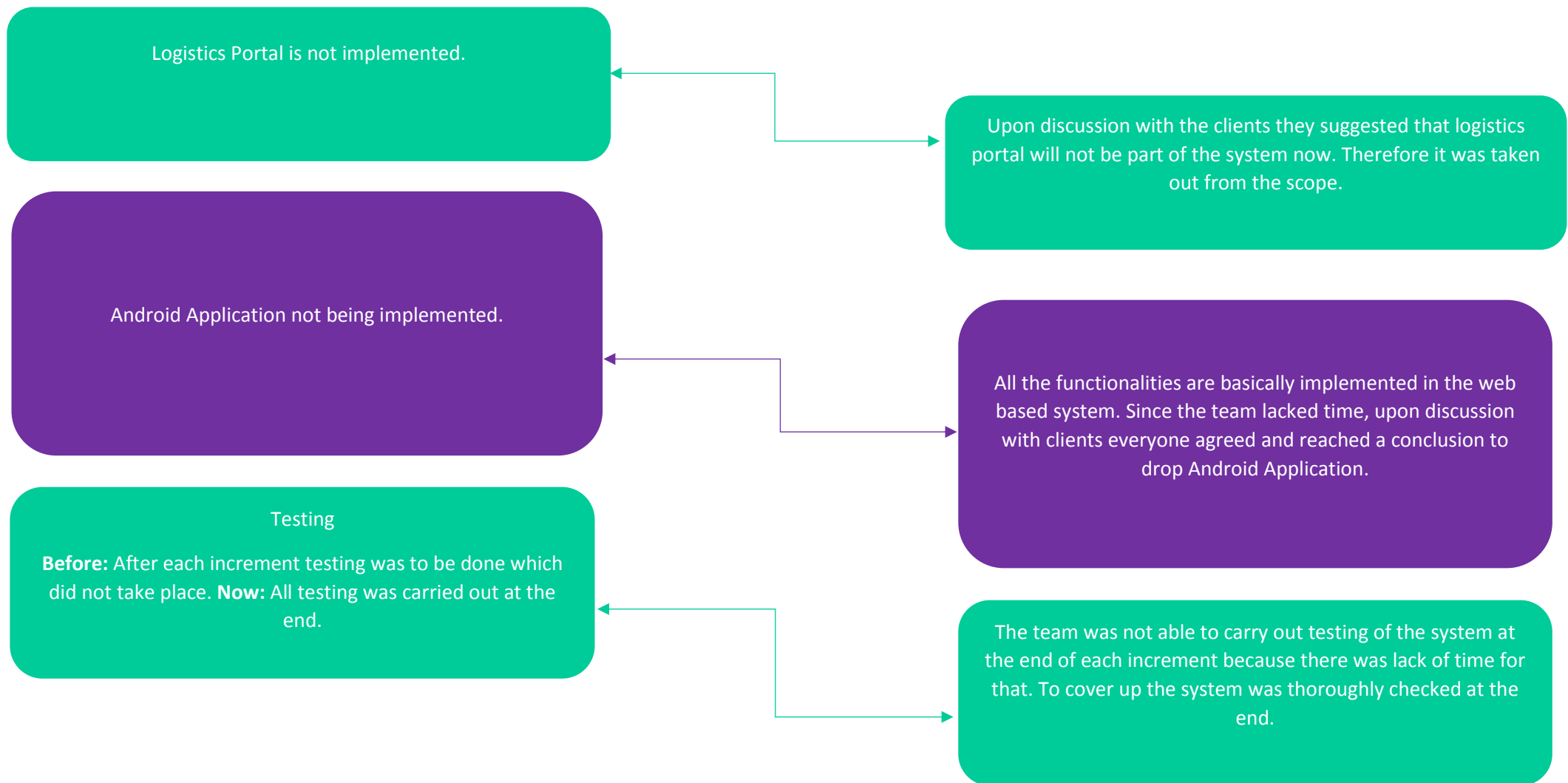
Not able to implement Login and Administration Portal in increment 1.  
Not able to implement Account Manager and Guest User Portal in increment 2.

All members new to ASP.Net MVC which resulted in slow progress in the beginning of coding.  
Time was devoted in learning and understanding ASP.Net MVC.

Extra implementation work assigned in increment 3 and 4.

Since the team was not able to implement what was planned, the pending work was supposed to be completed in increment 3 and 4.





## Milestones Achieved (Deliverables)

### Industry Experience Project Milestones



### Electronic Order Processing System Milestones

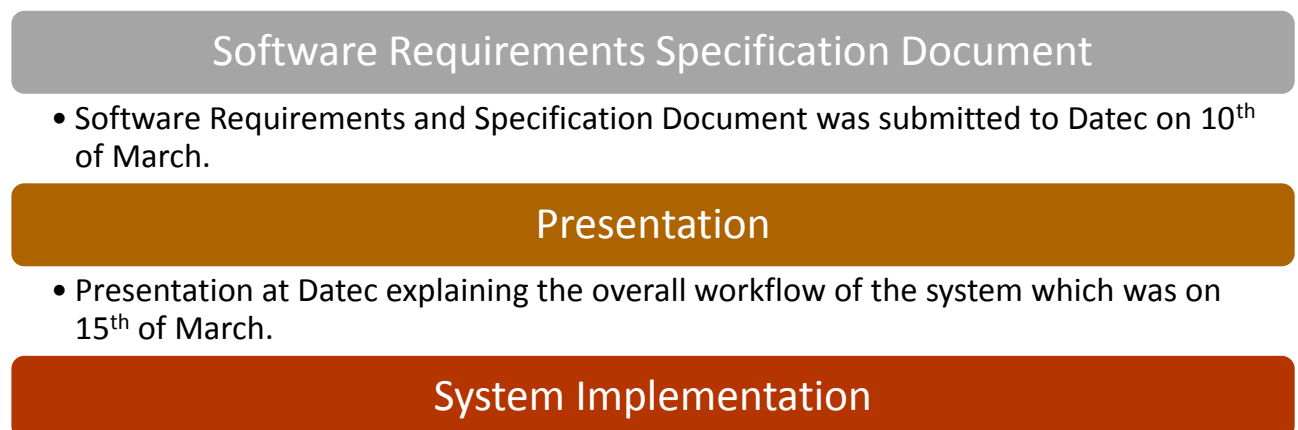
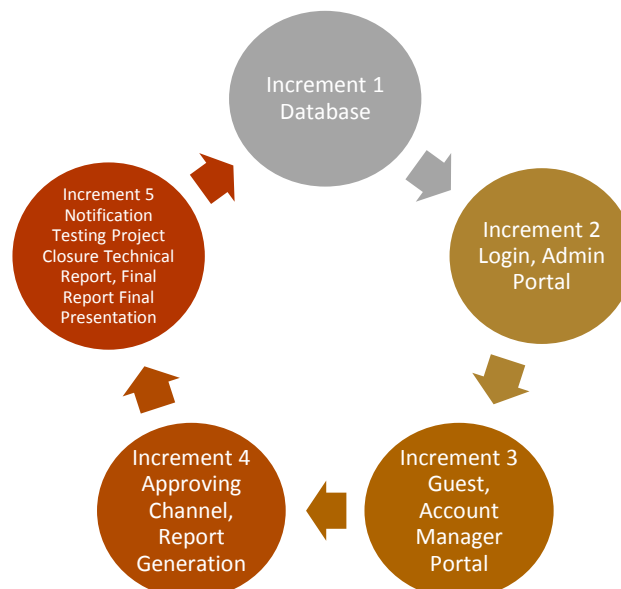


Figure 5 System Implementations



## Solution

### Login

First the user will input his/her username and password. Then it will verify the credentials in the database together with the user role. If the user ID or password is not found or is wrong an error message will appear and it will ask the user to input the credentials again. If the ID and password is correct the page will open according to the user role.

### Search

All the users of the system can use this functionality. Here the user can **search for their desired OPF**. They also have the option to filter their search. The database will return the search results and the user will be able to open and view the OPF.

### View

All the users can of the system can use this functionality. View for account manager and the approving channel is different. Here **all the OPF's will be listed**. The user can open any OPF and view it.

### Account Manager Portal

Account manager can **view** the OPF and also the Costing sheet. They have the right to Edit, Transfer and Save the OPF and for the costing sheet they can Transfer, Duplicate and Save it. Upon clicking the **Add Tab**, they will be able to add a costing sheet. After adding a costing sheet they will have to fill all the mandatory fields and can either save or generate an OPF. If they want to save the costing sheet and edit it later than it will be saved under **Saved Tab**. They can also **Search for OPF** and **Costing sheet** and **Generate Reports**.

### Administration Portal

Admin of the system is responsible for managing the rates, user roles and the transfer of the ownership. He/she can manage the rates under the **Rate Management Tab** where the VAT, Freight and Currency can be edited, deleted and saved. For the **User Roles** they can search for users. If the users name appears in the database but it has no role assigned to it than they can **assign a role for that user**. If the user does not exists than they can also **add the user in the database**. They can **View OPF**, **Search OPF** and **generate reports**.

### Approving Channel

After the progression of OPF from the point of creation by Account Managers, the OPF goes through the required hierarchy of approvals by **Quality Assurance, Department Managers, Chief Finance Officer and General Manager**. They can also **Search OPF** and **Generate Reports**.

### View Tab

The view tab for the approving channel is different from the rest of the users. This is an active tab where all OPF is listed. You can open the OPF and perform the required task.

**View Attached Documents:** here all the supporting documents of the OPF will be attached for example quotes.

**Approve/Reject:** You can approve and reject the OPF after checking the details properly

**Add Comments:** Upon approval comment is not necessary but when you reject it is compulsory that you add comments otherwise you won't be able to send it to the next authorising body.

**Return to OPF's:** It will take you back to view tab.

## Guest User

Guest users can be auditors of the company. They can login using their guest user credentials given by the Administrator. Guest users can **View, Search and Generate Reports**.

## Generate Reports

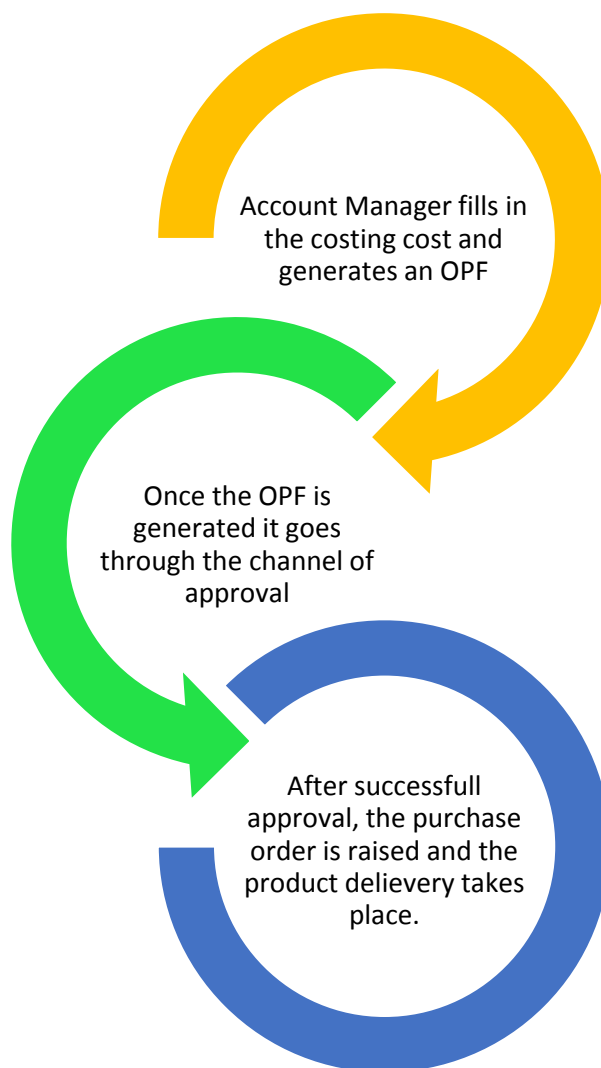
All the users of the system can use this functionality. There are 4 types of reports that can be generated which are:

- OPF submission report
- OPF summary report
- OPF status report
- OPF History report

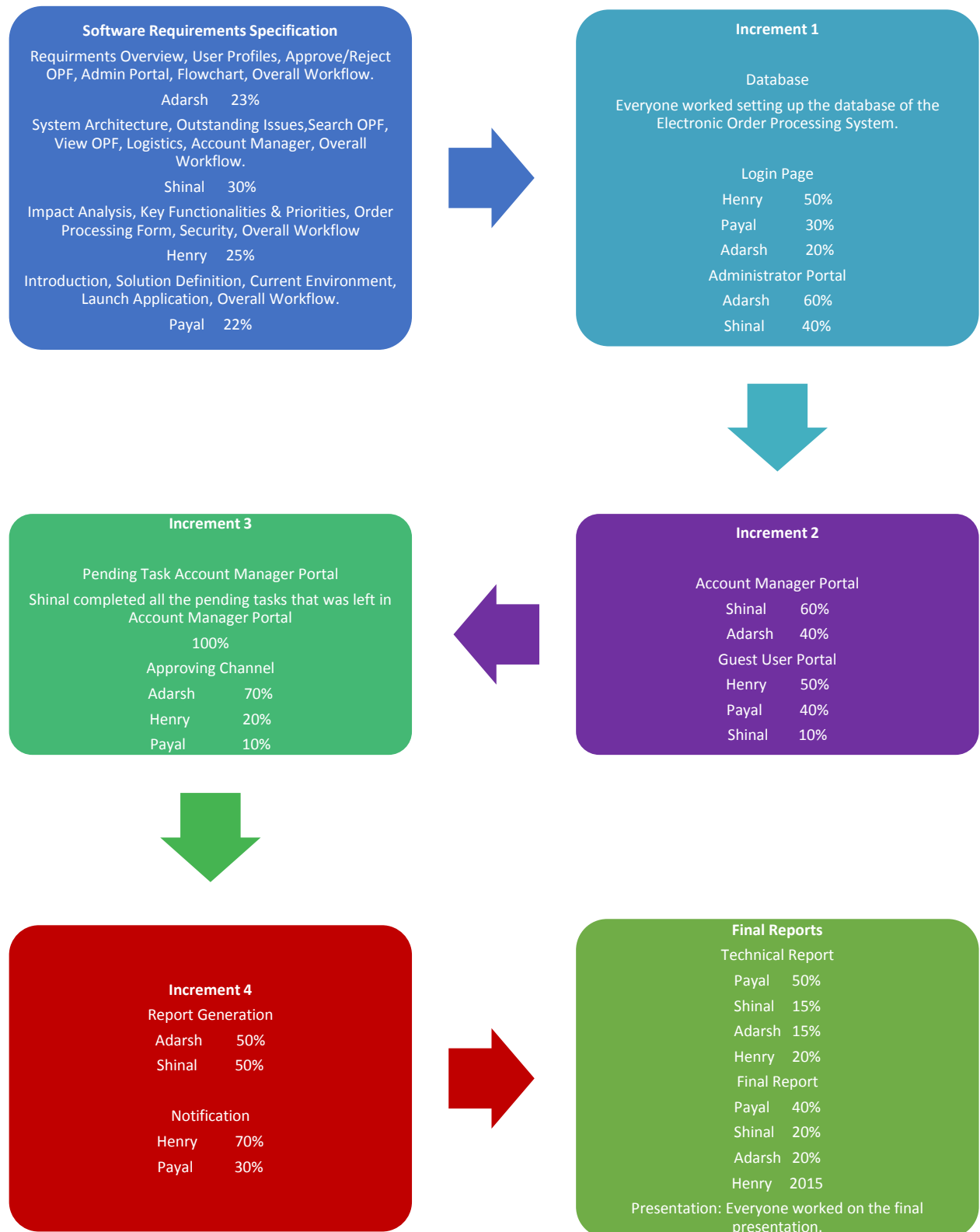
Once you select on the type of report you want to generate, click on generate report button. The report will be generated. You can also save it on your personal computer and can also print it out.

## Life of an Order Processing Form

*Figure 6 Order Processing Form Lifecycle*



## Individual Contribution



## Ethical Issues and SFIA Skills

### Ethics

**Data Used** – Datec provided us with the Active Directory. It contained everyone's information in terms of personal and professional. We were given access to the database and we only utilised it whenever there was a need to test the system.

**Processes followed** – every company has a different strategies of doing work. Datec shared the business process and their programming techniques. The team did not disclosed this information with other IEP students.

**Communication with stakeholder** – there was regular client meetings. Whatever discussed in the meeting was kept confidential.

**Sharing of information** – there were group discussion in terms of requirements and system implementation but the team did not disclose any confidential information with other students.

### IEP Learning Outcome at SFIA Skills

**Autonomy** - refers to working under general direction. Each team member was given a task which everyone had to complete within the given timeframe before the team reviews the progress. Any difficulties faced was discussed and overcome as a team.

**Complexity** – the project was getting complex as time passed. Working in a team/group worked as a great advantage here. The team members helped each other to complete the work and meet due dates. The team was always supervised by either the group leader, course coordinator or the client which was an added advantage for the team; it acted as general guidance and brought discipline.

**Influence** – making decisions that are critical to industry or the team and helps to bring organisational growth. Some very strict decisions were made within the team which resulted in achieving milestones on time.

**Business Skills** - demonstrating analytical and systematic approach to problem solving. The team developed effective communication, organisational and presentation skills while working at Datec. The team also adapted to Datec's programming techniques.

## Team Review



Adarsh Sharma, BSE

During this project I have learnt a lot of things. Through this I believe I have prepared myself academically, as well as how to become professional in a working environment. This IEP journey was challenging, interesting and informative. I have learnt how to work in a simulated and controlled environment, great exposure to working in a team plus learning MVC ASP.Net was really a challenge.



Shinal Sen, BSE

IEP was an introduction to the real life problems. It was a great opportunity for me to work with industry people. I have developed a lot of skills while working at Datec, just to name a few: coming to work on time, having client meetings, formal wear everyday was some of the interesting bits of IEP.



Payal Kumar, BSE

- CS400 has been a great learning experience for me. The industry based project that I have worked on is different from the assignments given in class in terms of clients expectations and requirements. In addition, we communicated with our client regularly, had to accommodate their requirements and understand their issues, wear formal outfit and complete our working hours. This project has instilled professional skills such as punctuality, etiquette and time management.



Henry Ulunisau, BNC

The aim of IEP was to provide me with an environment where I could develop my professional skills. Whatever I learnt during the course, I managed to apply it. Now I know when I enter the workforce, what I can expect from my clients, and what they will expect from me. This course helped my smooth transition into the workforce.

## Conclusion

The Electronic Order Processing System has been designed for our client Datec Fiji Limited. The main focus of this project was achieved and all of the functionalities required by our client was fulfilled. The system consists of online login portal into four types of accounts: Account Manager, Approving Channel, Guest User and Administrator. The main emphasis of this system is to streamline the business operations of Datec in terms of processing and executing customer purchase orders.

Reminiscing the moments spent in this project, I believe it was a great learning experience for my team members and I. Going through the phases of the development of the EOPS solidified the concepts that we had learnt in our courses. This challenge iterated the importance of team work, time management, proper etiquette, customer satisfaction and professionalism. The difficulties faced in this project strengthen our knowledge base and acclimatized us to the inner workings of the software designing process.

My team and I would like to commend the program coordinators for the introduction of CS400 into the curriculum. CS400 has given us a first-hand experience into the environment of the software designing industry. We will forever be thankful for this wonderful opportunity.

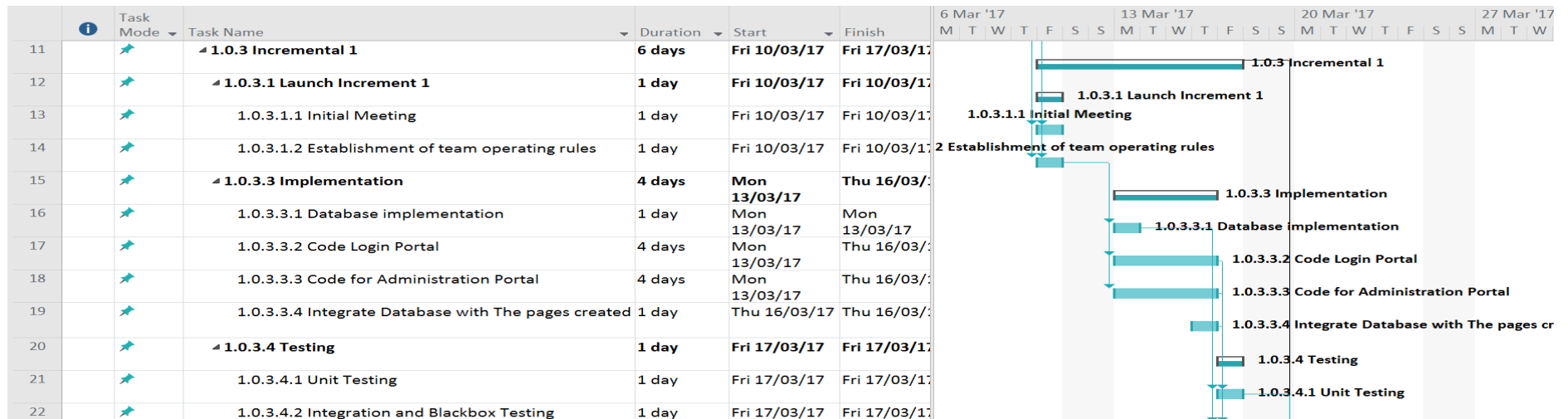
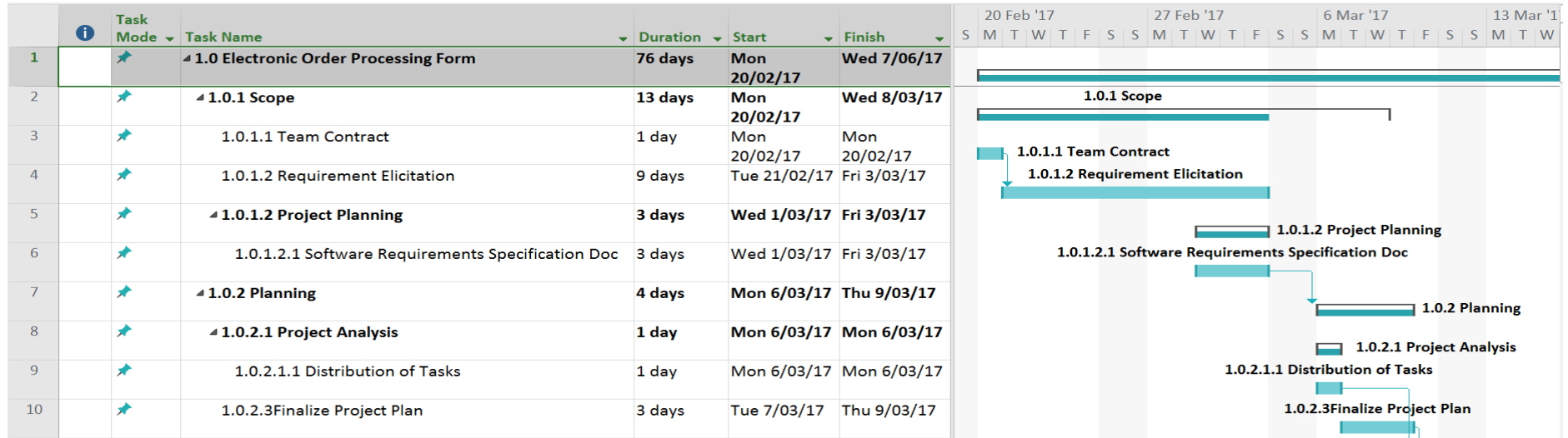


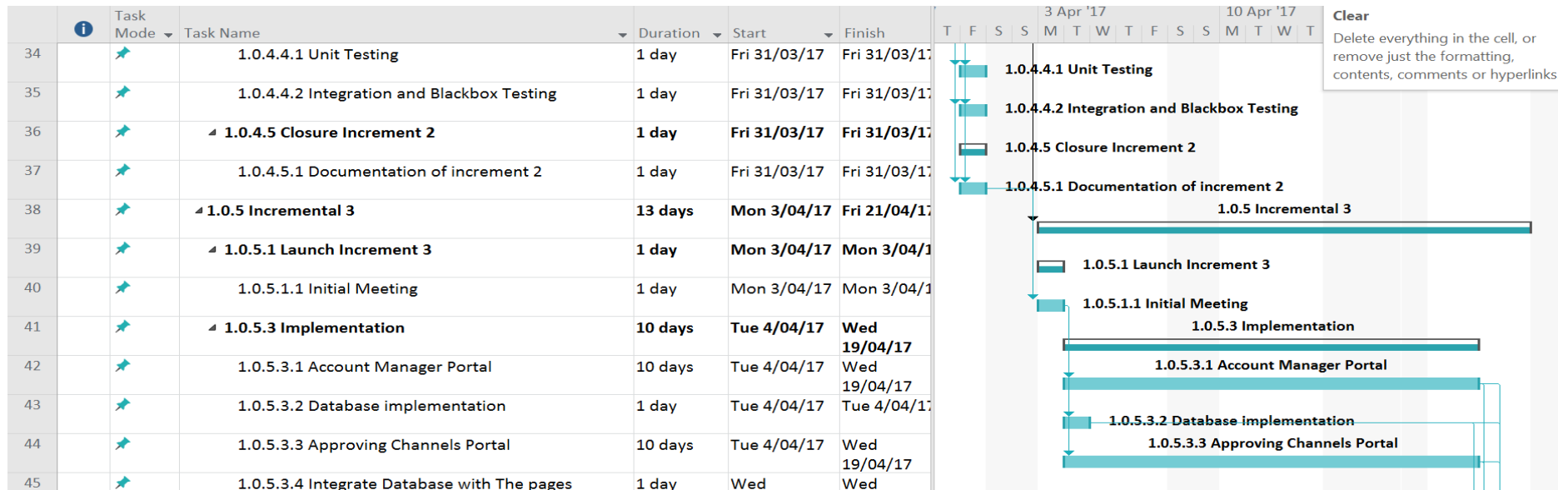
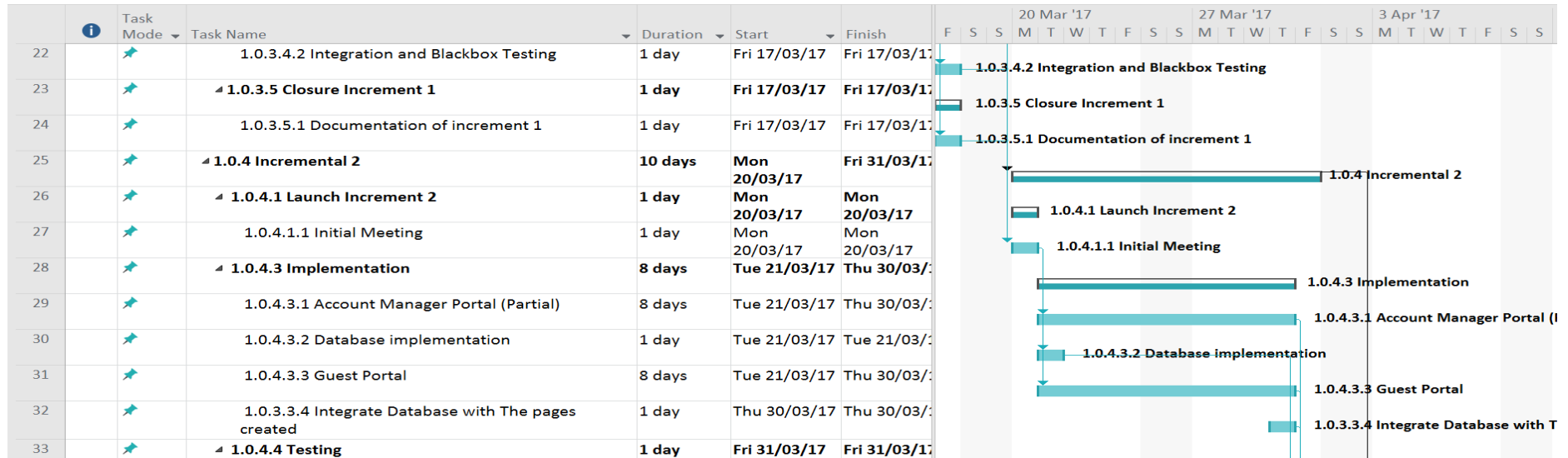
## References

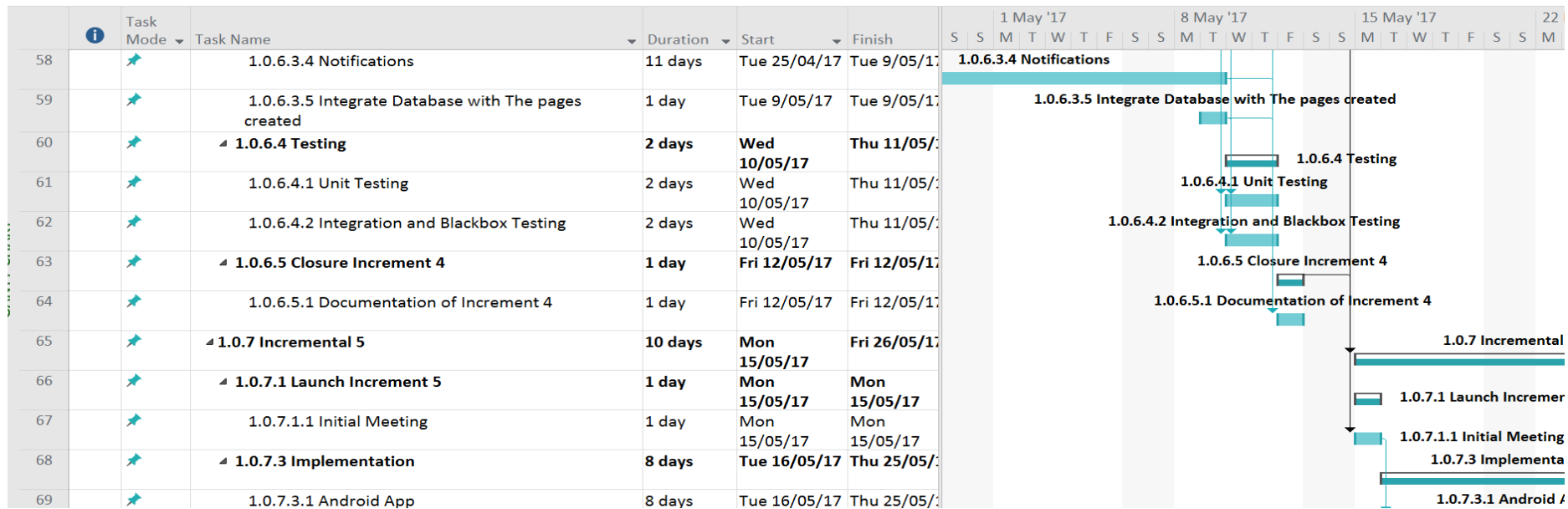
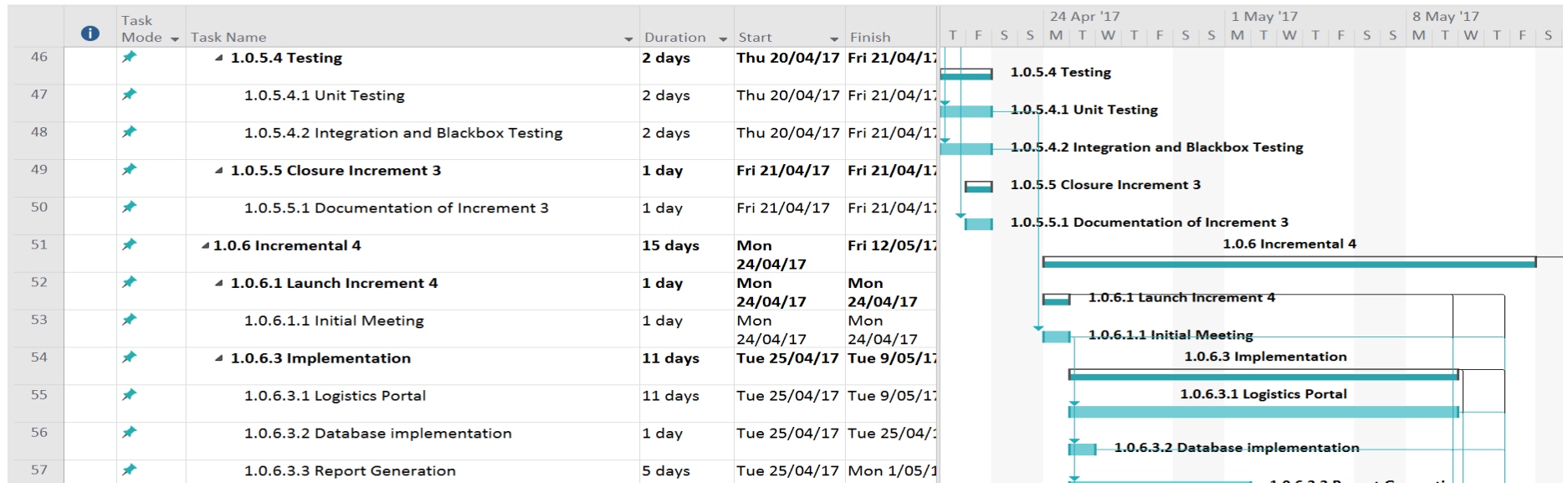
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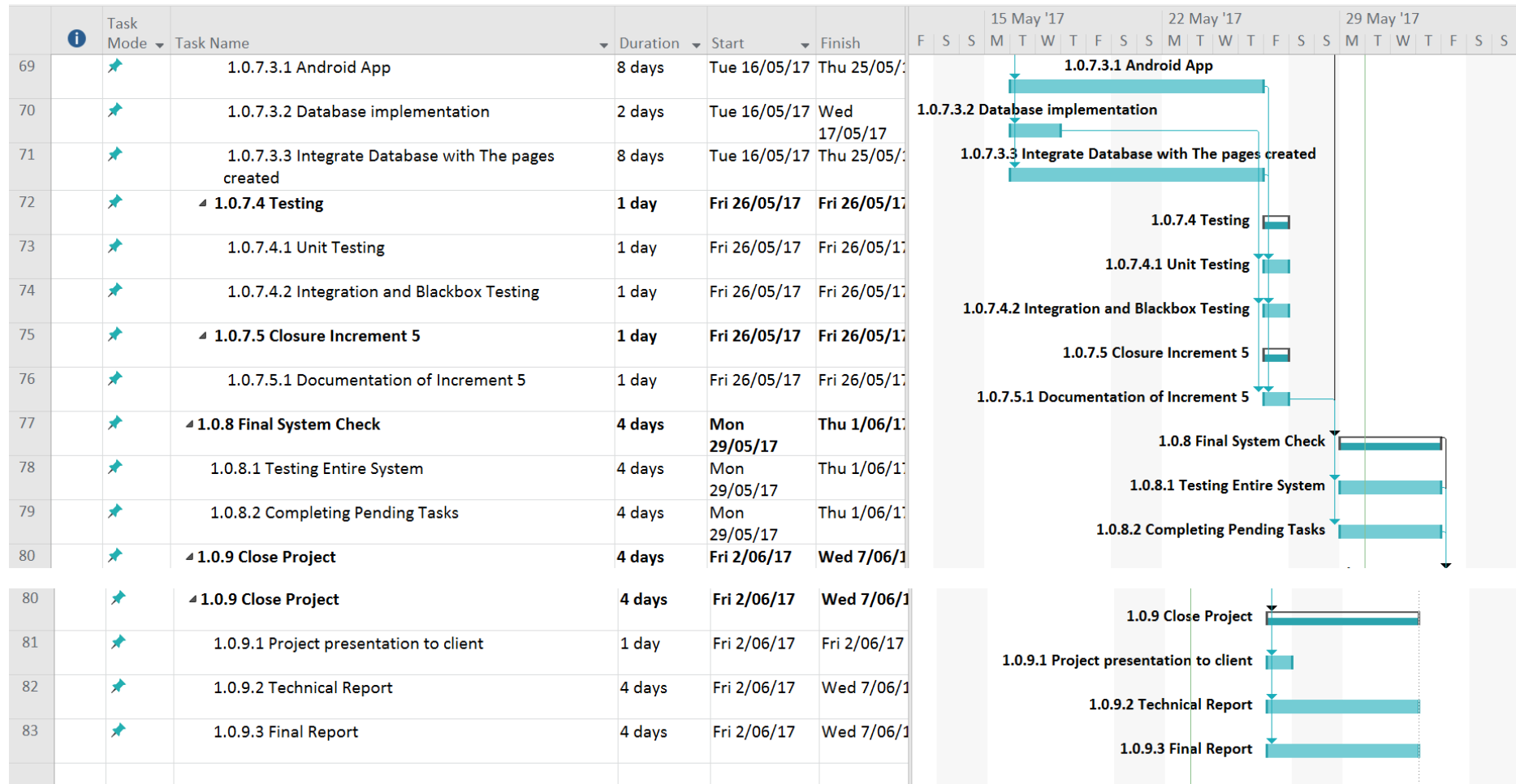
## Appendix

### Original Gantt Chart









## Finalized Gantt Chart

