

Assignment 4 - Iterative development

Note : I'm sorry about my english, I'm an Erasmus student.

Task 1 – Planning :

Task : Plan the work in iterations. You can choose to build on what you have done in previous assignments or start from scratch. Identify a goal for the project and goals, that is, the milestones for each iteration. What goals you set depend on whether you continue in what you have done in the past or start all over.

The goal is to provide a full implementation of every use case, with diagram to each of them and make every implementation of the use case.

Well I'm going to divide each iteration in a pair up two use cases :

Iteration 1 : View a list of book, view a book

Iteration 2 : Add a book, delete a book

Iteration 3 : Edit a book

The thing here is that the iteration has some dependencies between them, for example you can't add a book or delete a book if you can't view a book or the list of book, that's why the iteration 2 will depend on the previous one.

About the time each iteration will during 2 hours.

Task 2 Iteration #1 :

My planning for this task :

Well I'm going to first make the use case specification which will define all the requirement I need for this iteration (all use case are in the file Use_cases), then will come the design with all the different diagram who will help me to think about how I'm gonna implement my code, activity diagram , robustness diagram, sequence diagram (all the diagrams are in the file diagram), then come the test case, and the implementation, it's really important to have the test case before the implementation, because it permit you to think more about what case you should handle, and finally making those tests.

Plan the development activities and tasks :

incrementation 1 : Use case model (requirements)

incrementation 2 : Diagrams (design)

incrementation 3 : Test case

incrementation 4 : Implementation

incrementation 5 : Testing

Estimate resources :

incrementation 1 : Use case model (requirements) gonna take 15 minutes

incrementation 2 : Diagrams (design) gonna take 1 hour

incrementation 3 : Test case gonna take 30 minutes

incrementation 4 : Implementation gonna take 2 hours

incrementation 5 : Testing gonna take 1 hour

The use case is in the file Use_case
The diagram in the file Diagram
The test case in the file Test_case.

Governing phase : Execute the tasks and compare actual results with planned result.

Well all is working good with the task planned.

Reflexion : It's really good to have those “model”, iterative and incremental planning are very interesting because it permit you to directly make your tests right after you implement something instead of implementing all the project and then make your test after. There is not so much to say about this first iteration because it was focused on view a book and view a list of book, which is not that complex.

Task 3 : Iteration #2 and #3

The two last iterations are focused on adding a book, delete a book and edit a book, as I said I did the same « increment » way.

incrementation 1 : Use case model (requirements)
incrementation 2 : Diagrams (design)
incrementation 3 : Test case
incrementation 4 : Implementation
incrementation 5 : Testing

Estimate resources :

incrementation 1 : Use case model (requirements) gonna take 15 minutes
incrementation 2 : Diagrams (design) gonna take 1 hour
incrementation 3 : Test case gonna take 30 minutes
incrementation 4 : Implementation gonna take 2 hours
incrementation 5 : Testing gonna take 1 hour

Governing phase : Execute the tasks and compare actual results with planned result.

There is one incrementation that I didn't succeed, it's when I'm trying to delete the last book or add a book when the list is empty which is pretty bad.

Reflexion : Something interesting with the iterative and incremental planning are that requirements change each new iterations so with my use cases, and it's very interesting because it's exactly correspond to real life, every time the client will come and say oh I didn't wanted to make this or that and with this method you're able to directly make changes on it, you don't have to wait the end of the project to show him what you did, you can make a meeting at each iteration so he can see the development of the project.

Regarding the goal of the project, the goal is (almost) achieved, in the way that all implementation working as expected, except some specific test case that I'm not able to do them.