

# Estimation Method

## Pass Task 61C

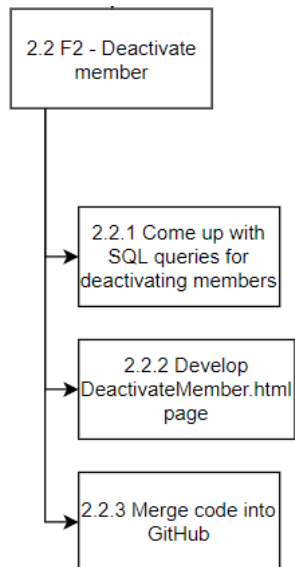


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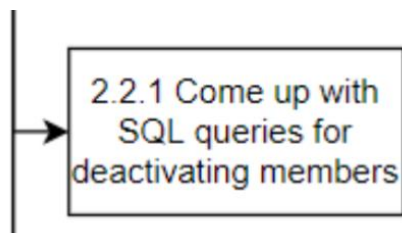
**Tutorial: Tuesday 12:30 Hawthorn EN310**

## Backlog item



## Actual estimation

### Subtask 2.2.1



### Estimation

**O** = 30 minutes   **M** = 4 x 60 = 240 minutes   **P** = 90 minutes

$$\begin{aligned} E &= 30 + 240 + 90 \\ &= 360 \text{ minutes} / 6 \\ &= 60 \text{ minutes} \end{aligned}$$

### Justification

#### **Optimistic (O):**

The optimistic estimated time decided is 30 minutes. Due to the sub-task being small in nature, the SQL code needed would be small and simple to implement.

**Realistic(M):**

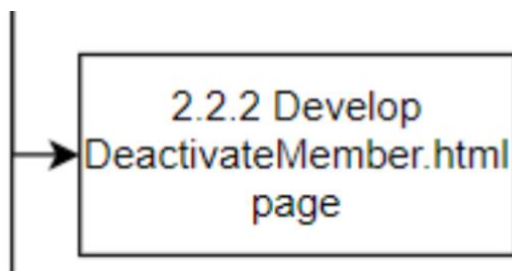
Realistically there may be errors that are encountered during the development of the query. Which will cause the exceeding in time taken to write a query. Thus takes another 30 minutes to develop a query. Hence giving the development more leeway.

**Pessimistic(P):**

However, the worst-case scenario estimated amount of minutes is 60 minutes or an hour. This is so if the developer completing a task is having trouble with SQL and need to re-learn sections.

Additionally, if there are many errors during testing. Even issues with connecting the query with the java code for sprint 1 to have functionality. Also the database. This may slow down the development of this task. Therefore another 30 minutes from the realistic estimation and 60 from the optimistic estimation.

## Subtask 2.2.2

**Estimation**

O = 60 minutes    M = 4 x 90 = 360 minutes    P = 120 minutes

E = 60 + 360 + 120  
= 540 minutes / 6  
= 90 minutes

**Justification**

**Optimistic (O):** It is estimated that developing the HTML page optimistically will take an hour. As coding in HTML is fairly easy and the only reason why it would take an hour is just to accurately complete the work, of adding the code.

**Realistic (M):** Realistically the implementation estimation may have issues, such as failing HTML page validations, and HTML not appearing on web applications, due to errors in elements. Furthermore leads to time spent on tasks increases. This is why 30 minutes are added from the optimistic value of 60 thus giving 360 minutes of working time.

**Pessimistic (P):** Worst scenario estimation the task will take 120 minutes or 2 hours. Due to having to always look up HTML code references as the developer has to brush up on HTML, presuming HTML is an easy language. Hence the developer may not take the coding as seriously. Additionally, due to not being as brushed up on HTML, there are a lot of errors and warnings appearing when HTML is run through a validator. Thus the developer may have to take time to remove the errors. Moreover, the developer also may be busy and puts off building the HTML page. Thus has to

complete the HTML page last minute thus rushing the task which may lead to more errors that take even more time to fix. All these issues in addition to failing test cases that have been assigned to the page.

### Subtask 2.2.3



#### Estimation

O = 30 minutes    M = 4 x 35 = 140 minutes    P = 60 minutes

E = 30 + 140 + 60  
= 230 minutes / 6  
= 38.33 minutes → 45 minutes

#### Justification

**Optimistic (O):** It is estimated that optimistically if all git hub repositories or set locally and online correctly. Uploading the code would be quick and easy, as the developers after doing the SQL query or HTML page would just have to push the files from their computer straight to the repository so other developers in the team are able to add or fix errors in the code. Thus in total taking, 30 minutes as doing the action of pushing the code would take 5 minutes. Loading might be a little longer hence extending the time to 30 minutes.

**Realistic (M):** Realistically Generally to the size of the code it may take longer to push the code from them which may cause it to take another minute to load, as the developer may be pushing complex or multiple backlog items. Therefore 35 minutes of time is taken to complete the subtask. Due to loading time.

**Pessimistic (P):** There may be errors in the repository setup. Where code is unable to be pushed onto the repository such as files not being saved in the same directory or files being deleted accidentally. In addition to this, the developer may have not downloaded the GitHub desktop app and hence not have a local repository. Therefore having to manually download and upload code to the repository. Which will affect the time taken to complete the task hence taking 25 - 30 more minutes than normal. Additionally, they may forget to push the code from local or online GitHub. Causing issues with a certain version having some features and others not. Which may take time to fix.

### Total time for a backlog item

**Total** = 60 + 90 + 45 = 195 minutes

**Image citation:**

Bell, M., 2022. The Difference Between Parametric vs Analogous Estimating PMP - Project Management Academy Resources. [online] Project Management Academy Resources. Available at:<<https://projectmanagementacademy.net/resources/blog/the-difference-between-parametric-vs-analogous-estimating-pmp/>> [Accessed 6 May 2022].