M5.B1: Assignment: Homework Assignment 5: Pair Programming

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Problem Statement:

We discussed pair programming in the lecture, and this assignment offers you a chance to try it.

1. Choose two user stories from your GEDCOM backlog.
2. Choose a pair programming partner from your GEDCOM team, along with one of your two GEDCOM user stories. Sit together, either physically together in the same place or virtually together using a screen sharing program such as Google Hangouts. (A single person may pair a program with more than one person if your GEDCOM has an odd number of people.)

As a team, pick three user stories. For each team member, implement one of the two user stories by yourself, noting the time it takes for you to solve the problem. The second user story implements it using the pair programming technique. Each person should be sure to fill the role of both driver and navigator. Note the time you spent implementing the user stories while working independently and while pair programming.

Deliverables:

Describe your experience implementing the two user stories, including the following details:

1. Identify your pair programming partner.

   Answer: My Pair Programming Partner in this assignment is Nancy Gupta (CWID:20018167)

   We implemented the user story in pair programming us02: To check number of marriages in the family.

2. Identify the user story you implemented alone.

   Answer: I implemented the user story us01: Dates (Birth, Marriage, Divorce, Death) should not be after the current date.

3. Describe your experience working alone on the user story. How long did it take to implement and test the story?

Answer: While working on the user story to check the dates of marriage, divorce, death and birth in the family and individual list in our gedcom file required comparison checking the dates not greater than the current date and also that the date had some value which did not correspond to "N/A". If so, then we print the error and return the false value. All this required checking testcases and rewriting the code.

The roughly time estimated was 110 min. The actual time was 70 min to complete the testing and coding.

4. Describe your experience working with a pair programming partner on the user story. How long did it take to implement and test the story?

Answer: Working in pair programming on User story us02: To check number of marriages in the family was a combined effort done by me and my team member Nancy.

Each one of us took the role of driver and navigator every 15-20 min and we communicated well and discussed the testcases and formulated the user story by checking the number of marriages in family in our gedcom file. We learnt that working together was quick and faster and we were able to complete the task with equal collaboration.

The estimated time for implementation and testing was 3000 min 3-4 days. The actual time was 1500 min 2-3 days maximum.

5. Describe the advantages and disadvantages for you and your teammate while pair programming. What worked well? What didn't work well?

Answer:

Advantages of pair programming:

1. Pair Pressure: We both were devoted to the task and were not distracted by other activities. We both treated valuable shared time and followed the code syntax environment standards effectively.
2. Pair negotiation: We both managed to share our viewpoints of how to go about the task and shared new ideas to implement and equally appreciated the effort.
3. Pair Courage: Due to good planning and good support from my team member we were able to work under pressure and gave each other feedback as well.
4. Pair review: We both were able to test and debug the code as early as possible.
5. Pair learning: Watching my team member perform and plan the task was very helpful and was a learning experience.

Disadvantages of pair programming:

1. Required to be in the same location. Sometimes that is not possible since team members are not co-located at the same place, so it is difficult to communicate.
2. Need to have same testing and developing environment. It is different for different machines due to configurations hence requires some effort in collaboration.
3. Working on time constraint.

What worked well?

Good Communication and understanding of problems did work well for us. We were able to plan the user story and implement it well.

What didn't work well?

Since at times we were not located in the same surrounding, we had to connect remotely to collaborate. Had we been in the same location we could have managed to work more efficiently, taking less time to implement and test.

6. Would you recommend pair programming? Why or why not?

   Answer: It all depends on the project workload and the working style of the individual.

   Pair programming has its advantages and disadvantages as listed above. So, if the work needs to be done faster than working individually and also as team then it is better to work in a pair to attain good development and better code quality by taking inputs from the team member and using effective communication.

   Also looking at the disadvantages sometimes I believe that pair programming may not be wise always to work since again the location, same testing and developing environment and time constraint and other several factors also matter.

7. Will you use pair programming on future GEDCOM user stories? Why or why not?

   Answer: If required to work in pairs in future we will look forward to implementing the strategy again as it was successful for this assignment. But again, it all depends on the problem statement, workload and working environment looking at various factors.