**Evaluation - Criteria 8 - Evaluation strategies for solutions and project plans**

**Efficiency:**

1. **Cost:** 
   1. Was there any cost associated with the evaluation of the solution?
      1. No cost
2. **Time:** 
   1. Does the solution process fast enough?
      1. The solution processes relatively fast given the number of forms included – 8 forms and multiple controls and functions. Works relatively quickly.
   2. Does it require a lot of time to use?
      1. It does not require a lot of time to use, approximately ten minutes will be more than enough.
3. **Effort:** 
   1. Did it take more effort than it was supposed to?
      1. No, the amount of effort is relatively small – the user is only asked to enter signup details (the 1st time and then login afterwards), save the time (start and finish) and calculate.

**Effectiveness:**

1. **Completeness:**
2. Does the solution complete all the tasks it is required to? Yes
   1. Storing the signup details in the XML ✔
   2. Checking login details ✔
   3. Saving hours entered ✔
   4. Calculating and displaying the pay ✔
   5. Sorting the results ✔

\*One more thing that the solution is capable to do, is restoring the password of an account

1. **Readability / Clarity:**
2. Are the output results easy to find/read - are they described reasonably?
   1. Yes, the output results are clearly described when displayed. Also, the two list boxes have headings that clearly show the user what to expect from them
3. Do all the forms have clear instructions, labels?
   1. Yes, all forms have headings to make it very clear to the user of what form is open for them. For the instructions part, some forms have warnings in Red that tells the user about the restrictions of textboxes. Other forms have the help button, that gives more instructions. In form 4 specifically, there is a Need Help? button that gives information about how the system functions. Including what it can or can’t do
   2. Also, every form has its own instructions that are presented for the user to know where to start and what to do next.
4. **Attractiveness:**
5. Do the colours harmonies with each other?
   1. Yes, all colours match and harmonies together. As the background colour is light, black, blue and red colours for the controls work fine with it
6. Is there any contrast in the colours used?
   1. No, the colours were carefully picked as of what they are known for and what the user may be used to (they are used in this way in many other programs) i.e. Red for warning, Blue for help, Black for normal instructions and Bold for important piece of information.
7. Are the texts - fonts, big enough (NOT too big or too small)?
   1. Yes, the fonts in each form, suit the rest of the controls and give clarity to the user as some are bigger than the others i.e. the heading is bigger than the instructions in form 1.
   2. An icon for the solution was added at the end to give it more attractiveness – no breach of copyrights as I was the one to design the logo
8. **Accuracy:**
9. Is the output correct?
   1. Yes, the output was checked twice before confirming it is correct (by the developer) using efficient code for the calculations, provides correct results all the time.
   2. However, with the sorting the code was not as efficient, and could have been done in a different way, but the more efficient way did not work, and I thought that the sorting was an important part of the program. It still gave correct output
10. **Accessibility:**
11. Can people with disabilities use this software?
    1. It depends on the type of the disability. Unfortunately, the software does not support oral (voice) input – so in order to use, the user needs to be able to use a keyboard. Otherwise, someone else could help them using it.
12. **Timeliness:**
13. Is the XML file up to date?
    1. Yes, every time the form 7 is initiated, a function runs and checks if there are any days that aren’t recorded (the user did not wok in these days) and record them as 0 income/time. Therefore, whenever a new value is calculated, it is referenced to the previous one for week and month calculations.
    2. Also, methods/procedures and some functions has been used so that only specific part work each time as there’s no need to run through the whole code for a small task.
14. **Communication of messages:**
15. Is it easy to understand the instructions?
    1. The instructions are relatively easy to understand, and I quote from one of the users that tested it, “I was able to follow the instructions even after 8 hours of lectures – very clear instructions”
16. **Relevance:**
17. Does the output represent the pay per day, week or month as the user selects?
    1. Yes, whichever the user selects, the output is based on it. i.e. if the user selects week, the output is “You have worked 22.23 hour/s this week and your salary is $537.26”
18. **Useability:**
19. Is the software easy to use?
    1. Yes, the software is relatively easy to use. As mentioned above, the user only needs to press few buttons and enter signup/login details, start and finish time and the pay per hour (if not previously recorded/differs from the recorded one)
    2. Login, Signup, Saving, Calculating, Searching and Sorting? Does the Tab order work?
       1. All these functions work fine. Also, the Tab order works fine.

\* the solution would have been easier to use if displaying data was linked to the radio buttons change/check event instead of the display button (not applied to this solution)

**Evaluation of what the solution can and can’t do:**

* The scope in my SRS shows a list of what the solution can or can’t do. After development, some modifications were applied to the system.
  + The system only records the time for the current day/date and the user cannot change it. So, if a user enters time and does not calculate before the start of the next day, the values will be disregarded, and recorded as 0. That’s why after entering the finish time a message displays telling the users to calculate their pay before 11:59
  + A new piece of information is required from the user that is the security question & its answer for a second layer of security. Though, this could also be a security breach as the answer will be recorded in the xml file and the user can simply access it (I tried to encrypt it, but for some reason, when I was decrypting it, it was giving the password – therefore, the encrypting was deleted)

**Evaluation for Functional and Non-functional requirements:**

* The solution effectively records the input by the user in the assigned xml file and then manipulate it to create the output.
  + Functional:
    - Signup data – used for confirming login and password restoring
    - Start, finish and pay per hour – used for calculating the salary
    - Validation works effectively for all parts of the solution to make more robust
  + Non-functional:
    - Useability: discussed before
    - Reliability: efficient algorithm, methods and functions used to give the most accurate results possible
    - Portability: not portable – however, changes can be made to the xml file
    - Robustness: validation for every single input data made the program more robust, however, if the xml file is modified by an inexperienced person, error would occur
    - Maintainability: comments throughout the solution made it easier to modify it, also, modifying the xml file could be easily done using a notepad

**Evaluation of project plan:**

* Due to the changes in the due date some modification needed to be done on the project plan. However, I did not update the changes on the plan.
  + Development took much more than what was assigned in the project plan (it took around 20 days) 5 more than the allocated (including validation)
  + Testing and usability test took 3 days but was allocated more time in the project plan – 8 days
  + Evaluation took one day but was assigned 5 days
  + Overall, the project plan was helpful in the first 2 parts of the SAT, however, with the development, it was not as helpful, but it helped with the order of the tasks (development, testing, evaluation)