SAT Performance Criteria 5, 6, 7, 8

VCE Software Development Unit 4 Outcome 1

Performance criteria

- The following criteria are taken from Level of Performance **9-10 High**
- http://www.vcaa.vic.edu.au/Documents/vce/computing/Software_Development_SAT_Criteria_5-8.pdf
- Ensure you have completed and reviewed all your SAT project work against this criteria – it is how you will be assessed

Week 1

8. Understanding of strategies for assessing the effectiveness of the project plan in monitoring progress

- Reports clearly and comprehensively the usefulness of the initial plan and its adjustments in monitoring the progress of the entire project.

- Update your Gantt chart with Actual Start/ Actual Finished, % complete, Baseline
- Update your project log

5. Skills in organising and managing data and files

- Organises and manipulates all data through the efficient and effective use of appropriate data structures.

- Correct variables, use of arrays, CSV/ XML

6. Skills in using a programming language to develop a software solution that meets specific needs or opportunities

- Correctly selects and skilfully applies an extensive range of relevant processing features of the language to develop a correct solution. Coding conforms to all accepted conventions.

- Use of procedures, methods, functions, control structures (if/else, loops)

- https://msdn.microsoft.com/en-us/library/h63fsef3(v=vs.110).aspx Visual Basic Coding Conventions

7. Skills and strategies for testing and evaluating a software solution to meet specific needs or opportunities

- Explains in terms of efficiency and effectiveness how specific features of the solution meet all functional and non functional requirements.

- See "Evaluation across the PSM" slide in U4O1 Software Solutions
- Functional requirements <-> functional testing
- Non functional requirements <-> performance, usability, other testing
- Make explicit reference to efficiency and effectiveness criteria
- Test & Evaluation Report **new 21/07**

Week 2

5. Skills in organising and managing data and files

- Devises a coherent and appropriate file management system for storing and organising files that maximise ready access to data.

- Naming conventions: file, project, solution, folders
- File types: .vb, .txt
- Storage locations: local, network. Store your program and data files 'together'

5. Skills in organising and managing data and files

- Applies systematically a comprehensive set of procedures and techniques to efficiently and effectively handle and manage the security and accessibility of all files.

- Apply appropriate security to files
- Use suitable storage medium; back-up

6. Skills in using a programming language to develop a software solution that meets specific needs or opportunities

- Writes clearly internal documentation that is comprehensive, contains relevant program comments and is well formatted.

- https://www.khanacademy.org/computing/computer-programming/programming/good-practices/p/planning-with-pseudo-code using your comments for pseudocode is *efficient*
- Comment each file and each code block

7. Skills and strategies for testing and evaluating a software solution to meet specific needs or opportunities

- Proposes a coherent set of feasible strategies for evaluating the efficiency and effectiveness of the solution. Strategies align with all criteria.

- Create an Evaluation Report
- Include an Evaluation Strategy per text p. 116
- Ensure you have an evaluation strategy for every criteria (as determined in design)

Week 3

6. Skills in using a programming language to develop a software solution that meets specific needs or opportunities

- Documents the efficient use of a complex sorting algorithm in the solution.

- Sorting using in-built function (score 1-4)
- Complex algorithm (score 5-10)
- Depending on relevance to application as whole, how well it is coded, effect on the rest of the data, etc.

7. Skills and strategies for testing and evaluating a software solution to meet specific needs or opportunities

- Prepares a useability test (plan) that comprehensively covers **all targeted requirements of the solution**. Conducts test using a **set of suitable techniques** and meets user requirements.

- Must include participant selection, materials and procedure. Ensure your participant/s consent
- Test all features
- Include usability task descriptions and a requirement for efficiency, effectiveness or satisfaction for each

7. Skills and strategies for testing and evaluating a software solution to meet specific needs or opportunities

- Documents in detail a logically classified set of accurate **results** of the useability test (report).

- Record your results: screen capture, audio, notes, quotes
- See the "Usability report template" in Moodle and adapt for your test plan

7. Skills and strategies for testing and evaluating a software solution to meet specific needs or opportunities

- Implements all necessary **modifications** (in code) to the solution as a result of useability testing.

- "before" and "after" screenshots with annotation

Week 4

6. Skills in using a programming language to develop a software solution that meets specific needs or opportunities

- Applies efficiently and effectively all relevant data validation techniques to check the reasonableness of input data.

- Existence, type, range validation

7. Skills and strategies for testing and evaluating a software solution to meet specific needs or opportunities

- Documents formally and clearly a comprehensive range of relevant test data. Applies suitable techniques to detect all logic errors.

- Completed Test Table submitted
- Defect report (optional, not marked)

Week 5

8. Understanding of strategies for assessing the effectiveness of the project plan in monitoring progress

- Records correctly and clearly all adjustments to the initial plan during the progress of the entire project. Applies a range of appropriate recording techniques.

- Actual Start, Actual Finish, % complete
- Baselines

8. Understanding of strategies for assessing the effectiveness of the project plan in monitoring progress

- Applies systematically a coherent set of strategies for assessing the usefulness of the project plan.

- Include evaluation of the project plan in your Evaluation Strategies
- Include the results of your evaluation strategies in the Evaluation Report – Post-project review

8. Understanding of strategies for assessing the effectiveness of the project plan in monitoring progress

- Explains clearly and coherently the importance of relevant factors that influence the effectiveness of the project plan.

- Include this in the Post-project review (Evaluation Report)