

Study title: Improving Automated Assessments with Bucket Grading

Project Investigator:

<anon>

Co-investigators:

<anon>

Study Information: The purpose of this study is to investigate how automated assessments and feedback impact how students work through assignments. The insights gained will help improve automated assessments in future terms and future research. Participation in our study is entirely your decision.

Role of the Participant: You will be asked to answer a number of questions about experiences with automated assessments as part of your course work. Your repositories and non-code project deliverables will be de-identified and analyzed as part of this study. If you wish to opt-out of this analysis, please email rtholmes@cs.ubc.ca with the subject line "opt-out".

Risks and Benefits: There is no known risk from participating in our study, other than the risk associated with using a computer. The study has been designed to not impact your course work. We do not expect there to be any direct benefit from participating in our study. However, you may find it interesting to reflect on how you worked on your assignments this semester.

Compensation: You will be provided with 1% to your final exam grade. The instructors of the course will be informed after the final exam. The instructors will not have access to survey data (e.g. survey results) until after the grading period for this term has ended. The 1% bonus is only dependent on providing your CWL at the end of the survey, and not the quality or completeness of your responses.

Data Storage and Confidentiality: All data will be fully de-identified. You may be identified by number or pseudonyms in any internal or academic research publication or presentation. The raw data can only be used and seen by researchers directly involved in

this project. The de-identified data will be made available to researchers, publishers, and/or grant agencies as part of publishing the data from this study after any identifying information is removed from the survey results. Once data is made available, you may not withdraw your data.

All data will be stored on the University of British Columbia, Dept. of Computer Science server. The principal investigator will be responsible for the data during its retainment time. The data will be stored for five years, after which local copies will be permanently deleted. Copies of the data may remain on archive files kept by the Department of Computer Science, which adhere to the BC Freedom of Information and Protection of Privacy Act.

Contact for information about this study: If you have any questions about or desire further information with respect to the study, you may contact Professor Reid Holmes at rtholmes@cs.ubc.ca.

Who can you contact if you have concerns or complaints about this study: If you have any concerns or complaints about your rights as a research participant and/or your experiences while participating in this study, contact the Research Participant Complaint Line in the UBC Office of Research Ethics at +1 604 822 8598 or by long distance e-mail RSIL@ors.ubc.ca or call toll free +1 877 822 8598 with Ethics ID number H24-00658.

Thank you for participating in the survey. You will be asked to provide your CWL at the end of the survey in order to receive the 1% final exam bonus. Instructors will be informed after the final exam grading period, and only the CWLs (not the responses, which will be fully de-identified).

The following questions apply to your experiences in checkpoints c1, c2, and c3.

Q1: What techniques, tools, or methodologies did you use to assess the overall quality of your code solution during development? How did you determine when you were completed with each checkpoint?

Q2: When encountering an issue, defect, or feedback, what did you do to resolve the issue in general? For instance, what do you read, try, code, run, ask, etc. and roughly in what order?

Q3: How well did material covered in the project (code and non-code) reflect the material in lecture and on quizzes?

Q4: What are some of the most important or valuable concepts, techniques, or learnings, you learned from doing the project (code and non-code)?

Q5: Did the non-code tasks affect your implementation strategy or behaviour in subsequent deliverables? If so, how? If not, why not?

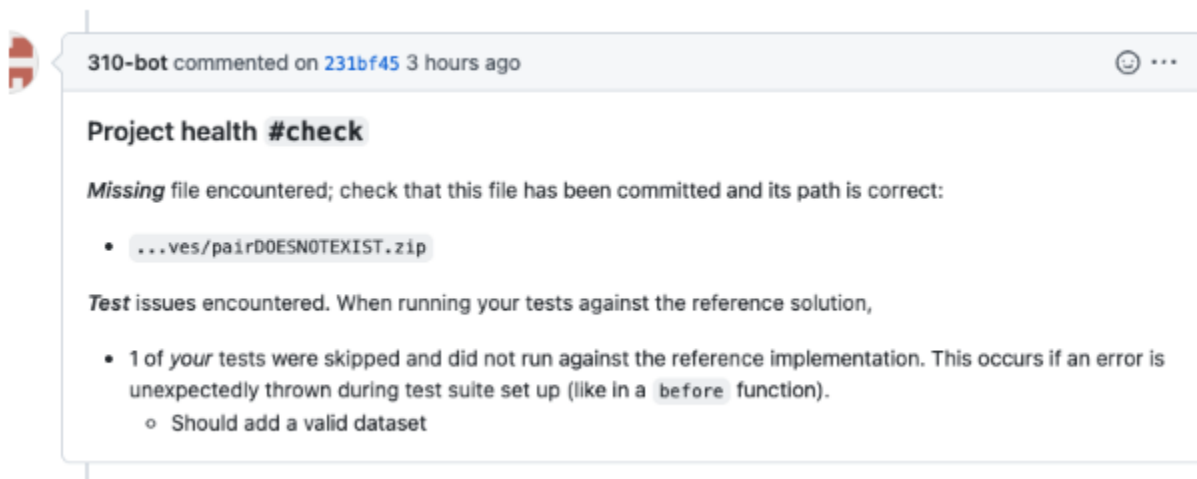
Q6: How did you approach managing and maintaining your code's maintainability throughout the project? For example, by addressing tech debt or coding style, or refactoring?

Q7: Given the following options detailing modifications to AutoTest, which of the following would you have liked the most while working on the project this semester? (If you could only choose one):

- More detailed feedback
- More detailed feedback on what grade my submission received
- More feedback on how the grade was computed
- Ability to check the same amount of feedback but more frequently
- No changes

Q8: Describe why you chose the option you did

For each of the following pieces of AutoTest feedback, please describe if you used it and how helpful it was:



Q9: Please rate your experiences using the #check command feedback

	Strongly Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I used this feedback frequently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This feedback was useful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q10: How did you use this feedback? What was it especially helpful or not helpful for?

#c2 Smoke Test Results

The status of your test clusters:

Cluster	Result
✓ AddDataset	1/1
✓ RoomQueries	1/1

The rest of smoke tests clusters are truncated for brevity in this example.

Additional Feedback

- **Artifact Quality:** **Developing** - This submission demonstrates support for basic and complex functionality. You've learned so much! You're almost to **Proficient** !
- **Focus Area:** We recommend you work on **RoomQueries** !

Q11: Please rate your experiences using the smoke test feedback

	Strongly Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I used this feedback frequently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This feedback was useful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q12: How did you use this feedback? What was it especially helpful or not helpful for?

#c2 Smoke Test Results

The status of your test clusters:

Cluster	Result
✓ AddDataset	1/1
✓ RoomQueries	1/1

The rest of smoke tests clusters are truncated for brevity in this example.

Additional Feedback

- **Artifact Quality:** **Developing** - This submission demonstrates support for basic and complex functionality. You've learned so much! You're almost to **Proficient** !
- **Focus Area:** We recommend you work on **RoomQueries** !

Q13: Please rate your experiences using the additional feedback

	Strongly Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Strongly agree
I used this feedback frequently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
This feedback was useful	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q14: How did you use this feedback? What was it especially helpful or not helpful for?

Q15: How did the bucket grading system affect your implementation strategy? If it did not, you may specify why not or say "N/A".

Q16: When your deliverable was assigned a bucket label (i.e. Beginning, Acquiring, Developing, Proficient, and Extending), did you interpret the label as is (in the bucket scale) or did you convert it to a point scale or percent, or other?

Q17: Reflect on your interaction with bucket grading this semester. What were any positives, negatives, or confusions you had with the system?

Q18: CWL:
