

## The Learning Quest (Extra Credit)

To get full credit for the Learning Quest, you must complete five activities from List A and five activities from List B (partial credit also available). It is recommended that you complete one activity per week. You can report your participation weekly on the course website, but must report on and complete all activities by the last day of class. The submission form is linked on the course webpage. Below is the list of activities for the learning quest. If an activity mentions a buddy, then you are encouraged but not required to complete the activity with someone from the class.

### List A:

1. Take the *Character Strengths Test* and think about how you can emphasize your strength in this class and your whole life. <https://www.viacharacter.org/survey/account/register> Note: Using your character strengths has been shown to correlate with happiness in the workplace. You can use a pseudonym when you register.
2. Take a buddy and go for a stroll in one of Smith's many outdoor gardens or the paradise pond trail. Enjoy the fresh air and discuss how you are feeling about the course or a computer science topic.
3. Go to Smith's Museum of Art. While you are there consider checking out the exhibit entitled, Black Refractions: Highlights from The Studio Museum in Harlem (until April 12).
4. Attend an event offered through Smith's centre for the Performing Arts (or Five College equivalent). See the schedule here: <https://www.smith.edu/about-smith/performing-arts/performance-calendar>.
5. Get a full night's sleep (> 7 hours sleep) the night before one of your midterm exams (recommended before your CSC111 midterm).
6. Go to the Botanical Gardens Lyman Plant House & Conservatory. Look at the plants and find as many different recursive patterns as you can (note: we learn about Fractals/Recursion in Week 7).
7. Attend any event of the Smith Pioneers (Athletics and Recreation). Think about how you would store athlete information and keep track of their performance over the season.
8. Go to the Jacobson Center for Writing, Teaching and Learning or the Spinelli Center for Quantitative Learning and get help on your writing or quantitative skills while not on a deadline.
9. Write a brief reflection about a time when you took an action anticipating one outcome but a different outcome occurred instead. What external factors did you not know about or anticipate? Can you think of an example of a computer system in your life where this occurred?
10. Attend a Smithie's in CS event <https://sophia.smith.edu/smithics>.
11. Propose your own activity you feel would complement your learning in this class.

## List B:

12. Ask/answer a question in class related to a course concept or attend TA or instructor office hours to get some help.
13. Decide on a system to organize all your files related to CSC111 in folders and sub-folders. Go arrange your course work in that system. Take notes if you change the system throughout the term. Bonus: Apply the same organization system to all your other courses this term.
14. Go to the Young Library. Look at how books are sorted (*hint: Library of Congress*). Think about how you would store the book information and how you might sort the books if you designed the library differently. Bonus: Go to the Forbes Library and see how they sort the books differently.
15. Write an article about any topic in this course, submit it to the Sophian.
16. Design an algorithm for assembling the best salad/tacos/burger. Bonus: Have lunch with a buddy and compare your algorithms.
17. Pick the farthest two points you need to travel on campus in your schedule. Figure out the most efficient route to get between points and write down an algorithm for how to get there. What conditionals could you add to improve the route (i.e., 'if statements') depending on external factors (e.g., accessibility, weather, time of day). Compare with a buddy and give feedback. Bonus: Traverse each route with your buddy for additional feedback.
18. Write an algorithm that describes your morning routine on a class day. Can you modify that algorithm to accommodate any differences in your morning routine on a weekend? Write a second version of the algorithm that covers both class mornings and weekend mornings (i.e., 'if statements'). Compare your two algorithms with a buddy.
19. Observe an intersection with traffic lights. Write an algorithm that describes the on/off pattern of the lights (i.e., 'loops'). What safety features might be included in the light control algorithm? Compare with a buddy. Bonus: Observe the intersection at Elm/West/Main/State/New South Street.
20. Read a few articles about technology and people in technology in the news (e.g., <https://www.bbc.com/news/technology>, <https://www.nytimes.com/section/technology>, <https://goodblacknews.org/category/technology>, <https://www.voanews.com/p/6290.html>, <https://www.wired.com>). What do you find interesting, exciting, or concerning? Write a short summary (< 50 words) and post it to the #tech-news channel on Slack.
21. Talk with a buddy about a piece of code that you had difficulty debugging in this course. What did you try to change first? What changes ultimately resolved the issue?
22. Attend a Hackathon and practise your skills.