

**SI SESSION PLAN**

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| SI Leader: | Alex Iacob | Session Date: | 10/28/21 |
| Week #: | 10 | Session Letter: | B |
| Course & Section: | CSCI 141 Section 3 | Course Instructor: | Steele |
| Planning Date: | 10/28/21 | Planning Time: | 8:30 – 9:00 |

**Beginning reminders:**

1. Is the room set up in a way conducive to collaborative learning?
2. Is the agenda posted to the board for participants to see?
3. Do you have your attendance sheet up to record your attendance?
4. Do you have any other documents/resources up and ready to go for your session?

If you are all set with the reminders, then go have fun and good luck!

**Main concepts student should feel more comfortable with:**

* Stacks
* Queues

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| **Topics to cover** | **Process to use\*:** | **Time** |
| **Opener:** Announcements and agenda | HW 10 due on Friday and Lab 7 due next Tuesday. Exam is on week 12.  I’m also going to write the agenda on the board because I have to start doing that. | 3 - 5 |
| Google docs page about stacks and queues | I basically found Austin and Russell’s papers for these and I just combined the things that I liked from it. Here’s the link:  https://docs.google.com/document/d/1lCh7Unz\_I3BpfKlMni90codhGqJFBjT6EaKlvN2qqws/edit?usp=sharing | 15 - 20 |
| Live code with a technical interview question that I got. | I got a technical interview a while ago and the question that I got was similar to something that I remember we did in a CS1 review. We had to use the functionality of the stack in order to complete the challenge. We essentially get a string that looks something like ”((((())()()()()))))()()(())()())(((((((((())))))))))))))” just a bunch of parentheses and we have to use a stack to determine if there is an even amount of ‘(‘ and ‘)’. This seems easy considering you have a few conditions about the string. i.e. it starts with a left parenthesis and always has more left than right parenthesis. However, once you remove these conditions, it gets a bit harder to make bulletproof.  Solution:  You have to add the starting parenthesis, whatever it may be, then if you find the opposite type, you pop it from the stack. However, once the stack is empty, you have to add whatever comes first afterwards. I predict that my students are going to easily get the first part, however some struggle will come when I remove the base conditions for the input string.  Post session: They got it after a few hints, this is the code we wrote:  from cs\_stack import \*  def stack(thing):  my\_stack = make\_empty\_stack()  # count = 0  for stuff in thing:  if is\_empty(my\_stack):  push(my\_stack, stuff)  else:  val = top(my\_stack)  if stuff == val:  push(my\_stack, stuff)  else:  pop(my\_stack)  return is\_empty(my\_stack)  if \_\_name\_\_ == '\_\_main\_\_':  thing = ")(()(()()()()()()))((())()()()()())()((())(()())))()()()()()()("  print(stack(thing)) | 25- 30 |
| **Closer:** Classes/shopping cart | I want to ask the students to take advantage of their early enrollment time, if they have one, but have a backup ready | 5 - 10 |

*\*Possible processes: puzzles, informal quiz, think-pair-share, paired problem solving, graphic organizers, cheat sheets, collaborative questioning, student summaries, reviewing notes, work at the board, vocabulary…*

**Ending reminders:**

1. Did you check everyone in?
2. Did you remind everyone of the next session and any upcoming tests or quizzes or due dates?

**What closing tips/strategies would you like to emphasize through sessions this week?** Please be specific.

* Review the non-code aspects of the class almost as much as the code-aspects. Prof. Steele likes to test you on both aspects equally.

**After session thoughts:** How did the session go? Is there anything you would like to keep/drop/change for next time and how?

* I’m trying to blend more casual conversation in with whatever we’re doing at the time just so the session doesn’t have to feel more formal than it should be. I do want to try to bring back Kahoots to make the students talk more with each other.

**Bi-Weekly Question:** Have you tried any new marketing strategies? Which strategies have been successful for increasing your attendance?

* Honestly, I haven’t tried many new strategies because I get my handful of regulars almost every session.