*2022-2023*

**OSU Supplemental Instruction Session Planning Form**

SI Leader: \_\_\_\_Thomas Morton\_\_\_\_\_\_\_\_\_ Week of Semester:\_\_\_\_\_\_\_\_\_\_\_6\_\_\_\_\_\_\_\_\_\_\_

Course: \_\_\_\_\_\_\_\_CS 1113\_\_\_\_\_\_\_\_\_\_ Instructor: \_\_\_\_\_\_\_\_Dr. Crick\_\_\_\_\_\_\_\_\_

Session Objectives

1. Students will understand the different types of relational operators and their use cases.

2. Students will understand the difference in logical operators, their uses, and instances where they result in short-circuit evaluation.

3. Students will create a program using branching statements and understand the logical flow in branching statement execution.

Professor Meeting Notes:

I did not receive an email back from Dr. Crick.

Our arrangements are to meet on Wednesdays during his office hours, but since they take place during my session time, the window available for us to meet is limited. Because of this, I am not always able to meet during this timeframe. I will express this concern to Dr. Crick this Wednesday if I can get ahold of him.

Opening/Introductory Activity

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| Activity Name:  Fill in the \_\_\_\_ | Session Objective(s) Met:  Objective 1 | Time Allotted:  10 minutes | Materials Needed:  Zoom Whiteboard  Or Chalkboard | Targeted Learning Style(s):  Audial  Visual | Bloom’s Levels Used:  Evaluating  Analyzing  Applying  Understanding  Remembering |
| Explanation/Notes:  Given a brief series of questions, participants will fill in the blank with the relational operator (>, >=, <, <=, !=, ==) that is most appropriate for the given scenario. Afterwards, they will be asked to describe their thought process in selecting a specific operator. | | | | | |

Main Session Activity 1

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| Activity Name:  Logical Relay | Session Objective(s) Met:  Objectives 1, 2, and 3 | Time Allotted:  15 minutes | Materials Needed:  Classroom Handout  Pencil / Paper  Calculator preferred | Targeted Learning Style(s):  Visual  Kinesthetic | Bloom’s Levels Used:  Creating  Evaluating  Analyzing  Applying  Understanding  Remembering |
| Explanation/Notes:  Each participant will be given a handout containing a series of pseudo- logic gates containing number values and will be asked to trace out a route through the gates. Each step along the way will have the participant record a value, select a value, or evaluate a value. Candy prizes will be given to the participant who correctly evaluates the logic path fastest. (5-10 minutes)  Afterwards, each participant will be asked to write their own logic relay containing a depth of at least 3 relational or logical nodes, using all 3 logical operators. Then, each participant will exchange relays and race the other to finish their relay. (15-20 minutes)  Repeat activity as needed until time block has been filled. | | | | | |

Main Session Activity 2

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| Activity Name:  Penny For Your Thoughts | Session Objective(s) Met:  Objectives 1 and 3 | Time Allotted:  20 minutes | Materials Needed:  Computer with a Java IDE  or  Pencil and Paper | Targeted Learning Style(s):  Visual  Kinesthetic | Bloom’s Levels Used:  Creating  Evaluating  Analyzing  Applying  Understanding  Remembering |
| Explanation/Notes:  Each participant will write a small segment of code using branching statements to determine the smallest number of coins required to represent a given amount in pennies.  The objectives are as follows:   1. Declare and initialize a Scanner object to read in integers from the console 2. Declare integers for pennies, nickels, dimes, and quarters 3. Prompt the user for an amount in pennies and store it in the variable pennies 4. If the amount in pennies >= 25 record the value in quarters; then, take the pennies modulo 25 and update the pennies value 5. If the amount in pennies < 25 and >= 10 record the value in dimes; then, take the pennies modulo 10 and update the pennies value 6. If the amount in pennies < 10 and >= 5 record the value in nickels; then, take the pennies modulo 5 and update the pennies value 7. Else, record the number of pennies and prompt the user that they cannot make any other change 8. Output the number of pennies, nickels, dimes, quarters, and dollars   Teamwork is suggested, but not required. “Teamwork makes the dream work.”  Advice will be offered as needed. Solution will be provided at the end. Participants who finish early will be encouraged to assist other participants in working through a solution. | | | | | |

Closing Activity

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| Activity Name:  Identify the “Big Idea” | Session Objective(s) Met:  Objectives 1, 2, and 3 | Time Allotted:  5 minutes | Materials Needed:  None | Targeted Learning Style(s):  Audial | Bloom’s Levels Used:  Understanding  Remembering |
| Explanation/Notes:  Participants will be asked to summarize the key points from the SI session. Discussion will be encouraged on why these concepts are important in the production of effective and efficient code. | | | | | |

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| Plan for extra activity:  Predict Test Questions:  Participants will be asked to create a potential test question over the topics covered. Other participants will be encouraged to answer the question to the best of their ability. If no other participant answers, the original participant will be asked to give their answer to the question. | Extra notes:  Schrodinger’s thought experiment neglects the likely possibility that the cat will not sit quietly in the box. |
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