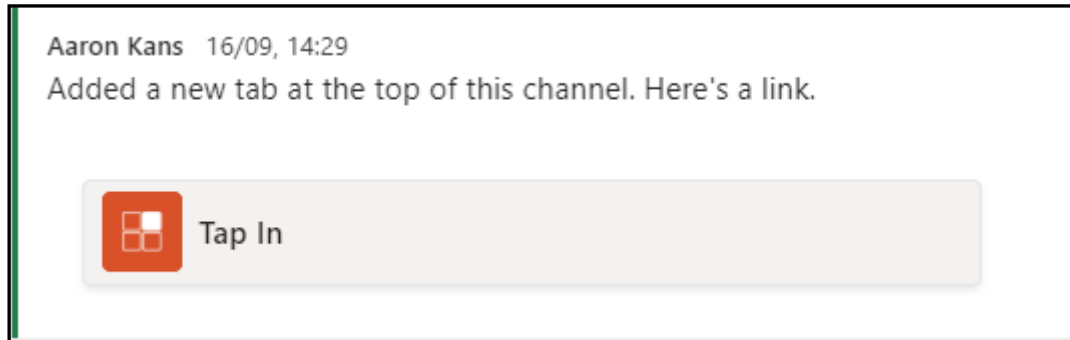


CD/CN4001 LAB SHEET -TOPIC 4 (MAKING CHOICES)

Before your lab session, make sure you have:

- **watched** the WEEK 4 lecture videos on the **CD/CN4001 Moodle Site** by clicking [here](#)
- **logged on** to the live lecture Q&A on **Monday 10-11am** via the **CD4001/CN4001 Teams** site by clicking [here](#).
- When joining the Q&A on Teams, please make sure you click the **Tap-In** button at the top of the **General channel** at 10am (link [here](#)):



Then check your timetable to find out the day/time/location of your lab session.

If you have permission from your course leader to study remotely, follow these instructions to access your remote lab (Tuesday 4-6pm):

1. Go to the ON-LINE LAB (Tue 4-6) channel on your **CN4001/CD4001 Software Development Microsoft Teams** site by clicking [here](#).
2. Wait for your tutor to start the lab session. To join the session, click on the “**Join**” button that will appear when your tutor starts the session.

JDoodle

To open the web-based Java IDE called **JDoodle** click [here](#).

ASSESSED TASK: 2 marks

For this task we will attempt to write a program that asks the user to enter two numbers and then compares these two numbers. Now let's carry out the following tasks in JDoodle:

- a) Delete the existing code in the main method, move the curly brackets so that they align and rename the class **CompareApp** as follows:
- b) Write the code to declare two variables, '**num1**' and '**num2**' say. These variables should be able to hold **whole numbers** only. Then write additional code to allow the user to enter values into these two variables.
- c) Use an **if** statement so that the message "Numbers ARE equal" is displayed if the two numbers are equal. Then display an "END OF PROGRAM" message at the end of the program.
- d) Add an **else** branch to the above **if** statement so that the message "Numbers ARE NOT equal", is displayed if the two numbers are not equal. The "END OF PROGRAM" message should still be displayed at the end of the program.
- e) Add some Javadoc comments into this program
- g) Download this file from JDoodle and then upload the **CompareApp.java** file to **Moodle** via the appropriate **submission link**.

ASSESSED TASK: 2 marks

For this task we will attempt to write a program that reveals secrets to spies depending upon their security level (1-3). Now let's carry out the following tasks in JDoodle:

- a) Delete the existing code in the main method, move the curly brackets so that they align and rename the class **SecretsApp**.
- b) This program will allow spies to enter their security level. Declare the appropriate variable and a Scanner object.
- c) Write the code that asks the user to enter their security level and store this level in the appropriate variable.
- d) The following secrets can be revealed to the spies depending upon their security level:

LEVEL 3: "The cook is an alien"

LEVEL 2: "There is a secret room in the basement"

LEVEL 1: "The security guard is a robot"

Use a **switch** statement to reveal the correct secret to the spy (note, only 1 secret should be revealed to each spy). Then display an "END OF PROGRAM" message at the end of the program.

- e) Finally, adapt the program so that an error message "NO SUCH LEVEL" is displayed when an incorrect security level is entered.
- f) Add some Javadoc comments into this program
- g) Download this file from JDoodle and then upload the **SecretsApp.java** file to **Moodle** via the appropriate **submission link**.