Start

Create an empty dictionary called 'courses'

Display the list of course IDs and names (optional step for reference)

WHILE True DO

Prompt user to input a course ID (e.g., "COS2005") OR type "done" to stop

IF user input is "done" THEN

Exit the loop

ELSE

Prompt user to input the course name (e.g., "Python Programming")

Add the course ID and name pair to the 'courses' dictionary

END IF

END WHILE

Prompt user to enter a subject (e.g., "COS")

Create an empty list called 'matching\_courses'

FOR each course ID in 'courses' DO

Extract the subject from the course ID (e.g., first three letters of course ID)

IF the subject matches the user input THEN

Add the course ID and its name to 'matching\_courses'

END IF

END FOR

IF 'matching\_courses' is empty THEN

Display "No courses found for the given subject."

ELSE

Display all course IDs and names in 'matching\_courses'

END IF

End