starter code

```
import random
import time

seasons = [”summer”, “winter”, “autumn”, “spring”]
randomSeasons = [ ]

for i in range(10):
        rand = random.randint(0,3)
        randomSeasons.append(seasons[rand])
        print(f”{i} : {rand} : {randomSeasons}”)
        time.sleep(3)
```

Run the code.

Can you see how it works?

In a loop, a random season is chosen and appended to the array, **randomSeasons**.

Adaptive maintenance

Remove the time.sleep code.

Remove the print statement.

Add a new print statement outside the loop: print(randomSeasons)

Change the loop to iterate 500 times.

Now, continue your program by translating this PSEUDOCODE to PROGRAM CODE

code warrior

```
count ← 0

OUTPUT “Enter a season”

INPUT season

//write a validation check to only allow
//”summer” or “winter” or “autumn” or “spring”: to
//be entered

FOR i ← 1 TO 500
    //write code that will count the number of times the
    //user input is in the randomSeasons array.
END FOR

IF season = “winter” AND count > 50
  THEN
    OUTPUT count, “: it is going to be a long cold winter!!“
END IF

OUTPUT “End of Program“
```

Corrective maintenance

Test your code and fix any bugs that appear.

Adaptive maintenance

If the user enters eg “Winter” or “WINTER”, the program should still work. Adapt your code.