FOUNDATION LESSON

WEEK 2 · LESSON 4

Membership and clean strings

Membership tests with in and not in / String validation and cleaning

MEMBERSHIP AND CLEAN STRINGS

MENTAL MODEL

Membership and clean strings

Membership checks whether a substring or item appears in a collection. Strip surrounding whitespace and normalise case before comparing text.
String methods return new strings. The original text remains unchanged unless you assign the result.

MEMBERSHIP CHECKS

CODE WALKTHROUGH W02-L04-S03

```
01  status = "PAID"
02  print("AI" in status)
03  print("US" not in status)
04  region = "GR"
05  approved = region == "GR" or region == "CY" or region == "IE"
06  print(approved)
```

WHAT TO TRACK

Membership checks

PREDICT THE RESULT

Predict the output.
Explain each operation.
Pause before continuing.

MEMBERSHIP CHECKS

CODE WALKTHROUGH W02-L04-S04

```
01  status = "PAID"
02  print("AI" in status)
03  print("US" not in status)
04  region = "GR"
05  approved = region == "GR" or region == "CY" or region == "IE"
06  print(approved)
```

WHAT TO TRACK

Membership checks

VALIDATE THE RESULT

```
True
True
True
```

CLEAN BEFORE COMPARISON

CODE WALKTHROUGH W02-L04-S05

```
01  raw = "  paid "
02  clean = raw.strip().upper()
03  print(clean)
04  print(clean.endswith("ID"))
05  print(raw)
```

WHAT TO TRACK

Clean before comparison

PREDICT THE RESULT

Predict the output.
Explain each operation.
Pause before continuing.

CLEAN BEFORE COMPARISON

CODE WALKTHROUGH W02-L04-S06

```
01  raw = "  paid "
02  clean = raw.strip().upper()
03  print(clean)
04  print(clean.endswith("ID"))
05  print(raw)
```

WHAT TO TRACK

Clean before comparison

VALIDATE THE RESULT

```
PAID
True
  paid
```

INDEPENDENT PREDICTION

LEARNER PRACTICE

Independent prediction

Change one input in membership and clean strings and test a boundary or edge case.

01 Predict the exact output.
02 Change only one input.
03 Run in a fresh Python process.
04 Explain any difference.

PREDICT · MODIFY · RUN

01 Restate the supplied rules.

02 Predict the result.

03 Modify and run the code.

04 Compare actual output.

05 Explain any difference.

MEMBERSHIP AND CLEAN STRINGS

Recap and next step

Membership checks whether a substring or item appears in a collection. Strip surrounding whitespace and normalise case before comparing text. String methods return new strings. The original text remains unchanged unless you assign the result.

UNDERSTAND APPLY VALIDATE EXPLAIN