FOUNDATION LESSON

WEEK 6 · LESSON 12

Final capstone delivery and next steps

A professional handoff contains evidence, reproducible instructions and honest limits.

THE MENTAL MODEL

MENTAL MODEL

The mental model

A professional handoff contains evidence, reproducible instructions and honest limits.

A CONCRETE HANDOFF CHECKLIST

CODE WALKTHROUGH W06-L12-S03

```
required=["README.md","config/config.json","src/pipeline_tools.py",
 "data/raw/flows.csv","outputs/summary.csv",
 "outputs/findings.md","w06_data_provenance.json"]
for item in required:
    print(item)
print("One chosen variant; one compulsory capstone")
```

WHAT TO TRACK

A concrete handoff checklist

PREDICT THE RESULT

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

A CONCRETE HANDOFF CHECKLIST · RESULT

CODE WALKTHROUGH W06-L12-S04

```
required=["README.md","config/config.json","src/pipeline_tools.
py",
 "data/raw/flows.csv","outputs/summary.csv",
 "outputs/findings.md","w06_data_provenance.json"]
for item in required:
    print(item)
print("One chosen variant; one compulsory capstone")
```

WHAT TO TRACK

A concrete handoff checklist

VALIDATE THE RESULT

```
README.md
config/config.json
src/pipeline_tools.py
data/raw/flows.csv
outputs/summary.csv
outputs/findings.md
w06_data_provenance.json
One chosen variant; one
compulsory capstone
```

A PUBLIC-SAFE ARCHIVE

CODE WALKTHROUGH W06-L12-S05

```
01 from pathlib import Path
02 import zipfile
03 root=Path("submission");root.mkdir()
04 (root/"README.md").write_text("Synthetic offline capstone",enco
↪ ding="utf-8")
05 allowed=[root/"README.md"]
06 with zipfile.ZipFile("submission.zip","w") as z:
07     for p in allowed:
08         z.write(p,p.relative_to(root))
09 with zipfile.ZipFile("submission.zip") as z:
10     print(z.namelist())
```

WHAT TO TRACK

A public-safe archive

PREDICT THE RESULT

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

A PUBLIC-SAFE ARCHIVE · RESULT

CODE WALKTHROUGH W06-L12-S06

```
from pathlib import Path
import zipfile
root=Path("submission");root.mkdir()
(root/"README.md").write_text("Synthetic offline capstone",enco
ding="utf-8")
allowed=[root/"README.md"]
with zipfile.ZipFile("submission.zip","w") as z:
    for p in allowed:
        z.write(p,p.relative_to(root))
with zipfile.ZipFile("submission.zip") as z:
    print(z.namelist())
```

WHAT TO TRACK

A public-safe archive

VALIDATE THE RESULT

```
['README.md']
```

AN OMITTED REQUIRED OUTPUT

CODE WALKTHROUGH W06-L12-S07

```
from pathlib import Path
required=[Path("outputs/summary.csv"),Path("outputs/findings.md
")]
missing=[p.as_posix() for p in required if not p.is_file()]
if missing:
    raise ValueError("Missing deliverables: "+", ".join(missing
))
```

WHAT TO TRACK

An omitted required output

PREDICT THE RESULT

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

AN OMITTED REQUIRED OUTPUT · RESULT

CODE WALKTHROUGH W06-L12-S08

```
01  from pathlib import Path
02  required=[Path("outputs/summary.csv"),Path("outputs/findings.md
↪   ")]
03  missing=[p.as_posix() for p in required if not p.is_file()]
04  if missing:
05      raise ValueError("Missing deliverables: "+", ".join(missing
↪   ))
```

WHAT TO TRACK

An omitted required output

VALIDATE THE RESULT

```
ValueError: Missing
deliverables: outputs/summar
y.csv, outputs/findings.md
```

GUIDED PRACTICE

LEARNER PRACTICE

Guided practice

Create a final checklist that explicitly includes a labelled chart, README, configuration, raw inputs, source and findings.

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.

INDEPENDENT PRACTICE

LEARNER PRACTICE

Independent practice

Write a two-sentence handoff note identifying synthetic data and a deterministic cost scenario without making an investment recommendation.

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.

CHECK YOUR UNDERSTANDING

MENTAL MODEL

Check your understanding

Diagnostic: Is the Week 6 formative pipeline a second compulsory project? No. It prepares the reusable functions for the single required final capstone.

RECAP AND NEXT STEP

Recap and next step

Submit one complete offline capstone with reproducible evidence and explicit limits.
Keep practising Python, validating data and explaining results.

UNDERSTAND APPLY VALIDATE EXPLAIN