MIS312 Assignment 6 — Testing and Prompt Engineering

Book Alignment: Chapter 6
Primary Goal: Practice a test mindset + improve AI prompts
Environment: JupyterLab (`.ipynb`)
Submission: OneNote Artifact (PDF)

Learning Objectives

- Write meaningful asserts
- Add one edge-case test
- Compare weak vs strong prompts

Student Tasks

Task 1 — Create a function

Create `assignment06_testing_prompts.ipynb`:

```python
def meal_total(base_price, tax_rate_percent, tip_rate_percent):
    """Return total meal cost including tax and tip."""
    tax = base_price * tax_rate_percent / 100
    tip = base_price * tip_rate_percent / 100
    return base_price + tax + tip
```

Task 2 — Write asserts

```python
assert meal_total(50, 10, 15) == 62.5
assert meal_total(30, 5, 0) == 31.5
assert meal_total(100, 20, 25) == 145
```

Task 3 — Add one edge-case assert

Example:

```python
assert meal_total(0, 10, 15) == 0
```

Task 4 — Prompt comparison (required)

Compare:

- Weak: "Write a Python function for meal total."
- Strong: includes exact function name/signature + asserts.

OneNote Artifact Requirements

- Function + asserts
- Screenshot showing asserts ran successfully
- Weak vs strong prompt comparison
- Reflection: What makes a prompt strong?