

# GitHub Copilot – Hands-On Use Cases

## 1. Autocomplete a Simple Function

**Prompt:** Type a function name and docstring like:

```
python
def calculate_area_of_circle(radius):
    """Returns the area of a circle given its radius"""
```

✅ Observe how Copilot fills in the correct formula and code.

## 2. Generate Unit Tests

**Prompt:**

```
javascript
function isPalindrome(str) {
    return str === str.split('').reverse().join('');
}
```

Then add:

```
javascript
// Write unit tests for isPalindrome
```

✅ Copilot will auto-generate Jest or Mocha tests.

## 3. Explain Code via Copilot Chat

**Prompt** (in chat):

“Explain how this sorting algorithm works.”

✅ Use for code walkthroughs or debugging understanding.

## 4. Find a Bug (Ask Copilot Chat)

Introduce a bug in a function:

python

```
def divide(a, b):  
    return a / b # What if b = 0?
```

**Prompt:** “What is the risk in this function?”

✅ Copilot will point out divide-by-zero risk.

## 5. Refactor Code Block

**Prompt:** Highlight this and say:

javascript

```
for (let i = 0; i < list.length; i++) {  
    console.log(list[i]);  
}
```

“Convert this to a `forEach` loop.”

✅ Cursor edits the code directly.

## 6. Ask “What does this file do?”

Open any medium-length script and type:

“What is the purpose of this file?”

✅ Cursor returns a high-level summary.

## 7. Add Missing Error Handling

Give it a function like:

python

```
def get_user_age(user_id):  
    return db.query(f"SELECT age FROM users WHERE id = {user_id}")
```

“Add SQL injection protection.”

✓ Cursor rewrites with parameterized queries.

## 8. Generate & Link Test File

Ask:

“Write a test for this function using pytest.”

✓ Cursor will create a new file if test folder exists.