

Classroom Quiz 01 (Key B)

Question 01

Which design pattern provides a way to notify multiple objects about any changes in state?

- A) Adapter
- B) Proxy
- C) Facade
- D) Observer**

Question 02

Which command shows the commit history?

- A) `git commits`
- B) `git show`
- C) `git history`
- D) `git log`**

Question 03

Which of the following phases comes first in Software Development Life Cycle models?

- A) Maintenance
- B) Testing
- C) Requirement Analysis**
- D) Deployment

Question 04

Which command is used to record changes to the repository?

- A) `git add`
- B) `git save`
- C) `git commit`**
- D) `git push`

Question 05

The Maintenance Phase of SDLC includes:

- A) System enhancements, bug fixing, and performance improvements**
- B) Initial coding

- C) System design
- D) Requirement gathering

Question 06

Which command is used to combine changes from one branch into another?

- A) `git fetch`
- B) `git merge`**
- C) `git pull`
- D) `git rebase`

Question 07

```
# config.py
class _Config:
    pass
_config = _Config()

# elsewhere
import config
x = config._config
y = config._config
print(x is y)
```

The intent of exposing a single shared `_config` instance is:

- A) Facade
- B) Command
- C) Singleton**
- D) Adapter

Question 08

Which of the following SDLC models uses a prototype for user feedback before the final system is developed?

- A) Agile
- B) V-Model
- C) Waterfall Model
- D) Spiral Model**

Question 09

Which design pattern allows incompatible interfaces to work together?

- A) Observer
- B) Proxy
- C) Strategy
- D) Adapter**

Question 10

```
def tax_es(amount): return amount * 0.21
def tax_us(amount): return amount * 0.07

class Checkout:
    def __init__(self, tax_fn): self.tax_fn = tax_fn
    def total(self, amount):
        return amount + self.tax_fn(amount)
```

Checkout choosing tax_es or tax_us functions is:

- A) Strategy**
- B) Builder
- C) Factory
- D) Proxy