**Python Week 5 Assignment**

# Parent class

class Device:

def \_\_init\_\_(self, brand, model):

self.brand = brand

self.model = model

def device\_info(self):

return f"{self.brand} {self.model}"

# Child class inheriting from Device

class Smartphone(Device):

def \_\_init\_\_(self, brand, model, storage, battery):

super().\_\_init\_\_(brand, model) # calls parent constructor

self.\_\_storage = storage # encapsulation (private attribute)

self.battery = battery

def install\_app(self, app\_name):

return f"{app\_name} installed on {self.device\_info()}"

def get\_storage(self):

return f"Storage available: {self.\_\_storage}GB"

# Create objects

phone1 = Smartphone("Apple", "iPhone 15", 256, "90%")

phone2 = Smartphone("Samsung", "Galaxy S23", 128, "75%")

# Use methods

print(phone1.device\_info()) # Apple iPhone 15

print(phone1.install\_app("WhatsApp"))

print(phone1.get\_storage()) # Storage available: 256GB

print(phone2.device\_info()) # Samsung Galaxy S23