설계패턴 6주차 실습

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Lab 1) – Façade Pattern

class ReservationSystem:

    def bookRoom(self, roomType):

        print(f"Booking a {roomType} room")

class CleaningService:

    def scheduleCleaning(self, roomId):

        print(f"Scheduling cleaning for room {roomId}")

class DiningService:

    def orderFood(self, roomNumber, foodItem):

        print(f"Ordering {foodItem} for room {roomNumber}")

class CustomerRequests:

    def requestItem(self, roomNumber, item):

        print(f"Requesting {item} for room {roomNumber}")

class HotelManagementFacade:

    def \_\_init\_\_(self):

        self.reservation\_system = ReservationSystem()

        self.cleaning\_service = CleaningService()

        self.dining\_service = DiningService()

        self.customer\_requests = CustomerRequests()

    def book\_room(self, room\_type):

        self.reservation\_system.bookRoom(room\_type)

    def schedule\_cleaning(self, room\_id):

        self.cleaning\_service.scheduleCleaning(room\_id)

    def order\_food(self, room\_number, food\_item):

        self.dining\_service.orderFood(room\_number, food\_item)

    def request\_item(self, room\_number, item):

        self.customer\_requests.requestItem(room\_number, item)

hotel\_facade = HotelManagementFacade()

hotel\_facade.book\_room("Deluxe")

hotel\_facade.schedule\_cleaning(101)

hotel\_facade.order\_food(101, "Pizza")

hotel\_facade.request\_item(101, "Extra Pillow")

텍스트, 폰트, 스크린샷이(가) 표시된 사진

자동 생성된 설명

Lab 2) – Adapter Pattern

class TwitterAPI:

    def get\_tweets(self):

        print("Fetching tweets from Twitter")

        stat = {"tweet": "Hello Twitter!", "likes": 10, "date": "2022-01-01"}

        return stat

class FacebookAPI:

    def get\_posts(self):

        print("Fetching posts from Facebook")

        stat = {"post": "Hello Facebook!", "reactions": 5, "date": "2022-01-02"}

        return stat

class InstagramAPI:

    def get\_photos(self):

        print("Fetching photos from Instagram")

        stat = {"photo": "Hello Instagram!", "likes": 15, "date": "2022-01-03"}

        return stat

# API , fetch\_posts

class SocialMediaAdapter:

    def \_\_init\_\_(self, api):

        self.api = api

    def fetch\_posts(self):

        pass

class TwitterAdapter(SocialMediaAdapter):

    def \_\_init\_\_(self, api:TwitterAPI):

        self.api = api

    def fetch\_posts(self):

        return self.api.get\_tweets()

class FacebookAdapter(SocialMediaAdapter):

    def \_\_init\_\_(self, api:FacebookAPI):

        self.api = api

    def fetch\_posts(self):

        return self.api.get\_posts()

class InstagramAdapter(SocialMediaAdapter):

    def \_\_init\_\_(self, api:InstagramAPI):

        self.api = api

    def fetch\_posts(self):

        return self.api.get\_photos()

def main():

    twitter = TwitterAdapter(TwitterAPI())

    facebook = FacebookAdapter(FacebookAPI())

    instagram = InstagramAdapter(InstagramAPI())

    for adapter in [twitter, facebook, instagram]:

        posts = adapter.fetch\_posts()

        print(posts)

if \_\_name\_\_ == "\_\_main\_\_":

    main()

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