# Introduction (P)

Introduce about the report

Hints:

- What are you gonna present in the following sections? Trong mon nay lam ve mot ke hoac gom cac khai niem dua ra cho ng xem kich ban , ve use case. Duc ket lai design pattern.

- In general, what is your application and what exactly is your task at this time?

# OOP general concepts (P1)

Introduce OOP, general concepts of OOP (need references / citations here)

Hints:

- what is OOP? The benefit of OOP,

- What are main features of OOP?

- what is class ?, what is object ? 4 tinhs chat . nap chong va ghi de, interface

+ Each feature: give a definition and an example (code + illustration)

# OOP scenario (P2)

## Scenario

Hints:

- Describe the scenario in general.

*For example:*

*Someone hired me / I am involved in a management system about A (write the company's name or project name), and my assignment is on creating menus for manipulating B in project A (list out all entities/classes in B you have to handle.*

- Show all fields in all classes: **describe their meaning** and **the data type you use**

*For example: class Product is a class that contains general information about a product, including:*

*ID: the product ID and is an integer value. Ghi ten field va kieu du lieu interface*

*Name: ... ghi dieu kien vo luon*

*Vd name and is an string value and condition 16 chracter*

- Show all expected menus which your program will display

*For example:*

*I just give only one menu for managing products. However, you have to show all expected menus when the program starts. Tat ca cac me menu du kien, dua tat ca.*

=====Manage Products ====  
=1. Add a new product =  
=2. Update a product =

=3. Delete a product. =

=4. Search a product by ID =

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Neu ng dung chon so 1 thi menu ra cai gi va so 2 ra cai gi. Va chuc nang

## Usecase Diagram

Definiton + Diagram + explanation

Hints:

3.2.1. Definition

- In UML diagrams, what is usecase diagrams?

3.2.2 Notations

- Usecase diagram’s Notations? (+ illustration) : actor(tac nhan), usecase, generalization, include, extend.

3.2.3. Usecase diagram of scenario:

- Your usecase diagram’s scenario 3.1 + Usecase specifications (Table 1.)

Cai nao khong co ghi N/A

|  |  |
| --- | --- |
| **Use Case ID(\*):** | Ghi ma cua UC ( UC-01)  UC-1.1 |
| **Use Case Name(\*):** | Ghi ten cua usecase  Add new Lion |
| **Priority(\*):** | Do uu tien (High su dung nhieu )(medium neu lam xong chu nang roi su dung lien) (low 3-4 nam moi sail an)  High – add  Medium - Show  Low – Remove, Update |
| **Actor(\*):** | User case nay cho ai sai ( gg, facebook , user) ai chia vo thig hi thang do  User |
| **Description(\*):** | (Actor) want to do (sth) for (sth)(su dung dich vu cua he thong)  Actor want to do add for add new lion |
| **Trigger(\*):** | Thao tac khi khong lam no thi usecase kh lam(nguoi dum bam nut dang nhap)  chon Add new lion |
| **Preconditions(\*):** | Du dieu kien usercase moi lam(phai co tai khoan)  N/A |
| **Basic Workflow(\*):** | Luon chinh theo thu tu usecase se lam (chon loai dich vu dang nhap kiem tra tai khoan do co chua )  B1 dang nhap  B2 chon dich vu  B2 nhap tk  B4 kiem tra tk  Di tu main menu di sau vao  B1 chosse aadd new  B2 enter information  B3 check information  B4 add success |
| **Alternative Workflow:** |  |
| **Exception Workflow(\*):** | Luong loi, 4gg(khi xac thuc that bai) dua ra su giai quyet cua su that bai neu chon hap lait hi usecae se chon bua 2  Show ra het loi dieu kien can co  error |
| **Postconditions(\*):** | Su kien cuoi cung sau khi usecase thuc hien thanh cong(he thong ghi nhan lai thong tin dang nhap)  Add success |
| **Business Rules:** | Quy tac doanh nghiep |
| **Special Requirements:** |  |

Table 1. Usecase specification

## Class Diagram

Definiton + Diagram + explanation (show what OOP concepts are displayed in diagram)

Hints:

3.3.1. Definition

In UML diagrams, what is class diagrams?

3.3.2 Notations:

What is class diagram’s notations (+ illustration): class, abstract class, interface, attribute(field), method, inheritance, access modifiers (private, protected, ...)

3.3.3 The class diagram of scenario:

Put your class diagram of scenario 3.1 here

- Explain the class diagram:

+ How did you use OOP concepts in the class diagram

+ What is the meaning of interfaces and classes in the diagram? (M)// interface chua cac ham dac biet

+ What is the purpose of methods in a class?

# Design Patterns(M1,M2)

Introduce design pattern, general concepts of Design Pattern and their benefits (need references / citations here)

## Creational pattern chon 1 cai

Introduce creational pattern (need references / citations)

Description of a creational scenario

Diagram + explanation

Code + Result

## Structural pattern chon 1 cai

Introduce creational pattern (need references / citations)

Description of a structural scenario

Diagram + explanation

Code + Result

## Behavioral pattern chon 1 cai

Introduce creational pattern (need references / citations)

Description of a behavioral scenario

Diagram + explanation

Code + Result

# Design Pattern vs OOP (D1, D2)

## Analyze the relationship between the object-orientated paradigm and design patterns.

Discuss / analyze the relationship between design pattern & OOP (should use your patterns in section 4 for specific discussion / analysis)

## Define/refine class diagrams derived from a given code scenario using a UML tool.

# Conclusion (D)

Give conclusion for your report

*Hint:*

*- Paraphrase your introduction.*

*- the importance of design pattern and the way to choose.*

*- Overall, what did you do.*