

BM#1077754

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C++ Training - Design Pattern

Design Pattern is used for Scalability

Structural

~~Can python generate binary?~~

Creational

Behavioral

Composite Design Pattern → structural

↳ tree view based

Composite - Leaf

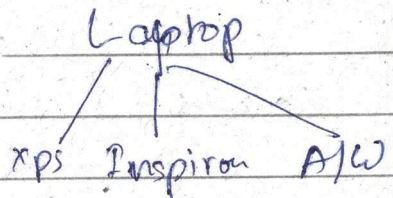
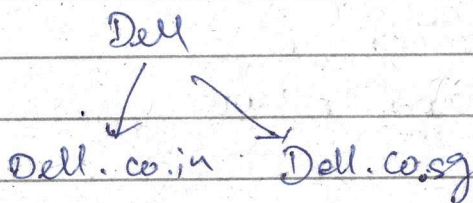
This design pattern is searchable

Helps to add/remove Leaf's easily.
or composite's

2. Factory Method → Creational

Creator

Product



Scalability.

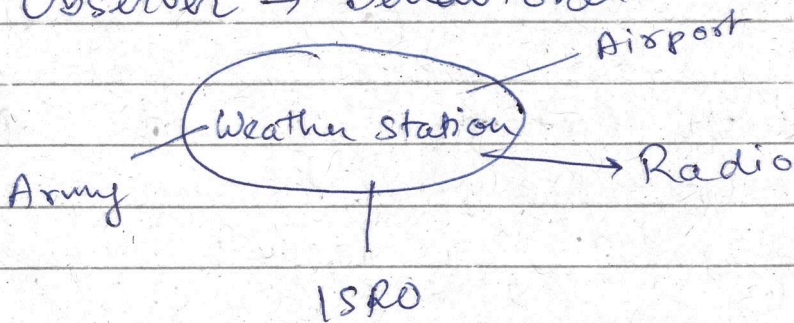
Create simple customized objects.

3. Template method

Use this to implement a workflow

or notification pattern

4. Observer → Behavioral



One to many relation.

Consumer-Provider architecture

5. Horse Shoe

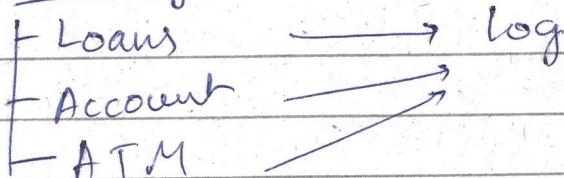
6. ~~Facade~~ FACADE

Combine multiple interface into smaller set of interface to simplify.

Ref: source-making.com

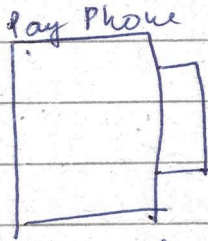
7. Singleton

Banking



Only one instance of Log
Constructor is private

8. State



Conditional

↳ you can dial only if you pay

Number of states are scalable.

New state should be possible add.

9. Strategy

3 Actors → context, strategy, ^{behavior} duck
↓
Duck concrete strategy
↓
does

Action Game

DUCK

Indian Duck

Yoga
↳ others cant

- does
- swim
- quack
- walk

rubber duck

Some properties dont apply

US Duck

Japan Duck

Dress-cowboy

Samurai

Behavior mismatch during inheritance.
Take out mismatching properties and create new class.

10. Abstract Factory

Provide user flexibility to chose features
~~Creator~~ ~~Product~~

Deep customization

Use when to create family of objects

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