

## 1) Creator Pattern

Who should be responsible for creating a new instance of some class?

- Assign the responsibility to a class that contains or aggregates the created object.
- Assign responsibility to a class that uses the created object
- Assign responsibility to a class that records the created object

Creator pattern connects creator to the created object which supports low coupling but initializing complex data can be problem for creator.

### Pros:

Choosing the correct creator supports low coupling and cohesion.

### Cons:

Assigning many responsibilities to a single class can negatively affect modularity.

## 2) Information Expert Pattern

Who should be responsible for this objective?

- Assign responsibilities to classes with partial information
- Assign responsibility to the class with all information
- Assign responsibility to a new class that gathers information.

Assigning all responsibilities keep setup cohesive but may cause bloated classes while distributed classes increase modularity but also increase coupling.

### Pros:

More efficient as there is main information expert

### Cons:

Can result with large complexity

Can cause large classes

## 3) Controller Pattern

What first object beyond the UI layer receives and coordinates ("controls") a system operation?

- Use use case controllers
- Use a facade controller

Facade controllers can be bloated. Use case controllers support modularity but they are harder to manage.

**Pros:**

Facade controllers are easier to coordinate while use case controllers provide modularity.

**Cons:**

Use case controllers are harder to manage and facade controllers can be bloated