

# Factory Design Pattern

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# What is Factory Design Pattern

- A container class (Factory Class) responsible for creating complex objects at run time through polymorphism.
- A Factory design pattern is achieved through a method which returns the object based on the client request.

# When we need a Factory Pattern

- Imagine you have to create a set of objects with a common base class and you need to use it widely across program execution and based on run time decision , Its a good idea to have a factory pattern .
- When we do not know what classes we may need at compile time.
- When all the classes are In the subclass hierarchy.
- Centralize and encapsulate the object creation.
- For example, If you are developing a Game application , you can have character factories and the characters can be created through a single interface.