PROTOTYPE
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EXAMPLE
class Monster

class Demon : Monster
class Wizard : Monster
class Ghost : Monster
WE WANT TO CREATE MORE MONSTERS
SPAWNERS FOR EVERY TYPE OF MONSTER
class Spawner

class DemonSpawner

class WizardSpawner

class GhostSpawner
SOLUTION
PROTOTYPE
SPECIFY THE KINDS OF OBJECTS TO CREATE USING A PROTOTYPICAL INSTANCE, AND CREATE NEW OBJECTS BY COPYING THIS PROTOTYPE.
class Demon : Monster

class Wizard : Monster

Add Monster Clone() method

class Ghost : Monster
class Demon : Monster

Clone()
class Demon : Monster

Clone()

Clone()

Clone()
class Demon : Monster

Clone()

Clone()

Clone()
Monster demonPrototype = new Demon()
Spawner demonSpawner = new Spawner(demonPrototype)
Monster demonPrototype = new Demon()
Spawner demonSpawner = new Spawner(demonPrototype)
HOW TO IMPLEMENT?

1. **Add a Clone** method to the class
2. **Create and configure** instances identifiable instances
3. **When a new instance is required,** copy the matching prototype.
Prototype is often used together with the abstract factory and factory method patterns.

- **Abstract factory** - Groups objects into families
- **Factory method** - Provides object creation interface
- **Prototype** - Implements the object creation
- Read Prototype chapter from Game Programming patterns and CGLearn
http://www.gameprogrammingpatterns.com/prototype.html

- Do the Prototype task in CGLearn IN TEAMS
https://cglearn.codelight.eu/student/tasks