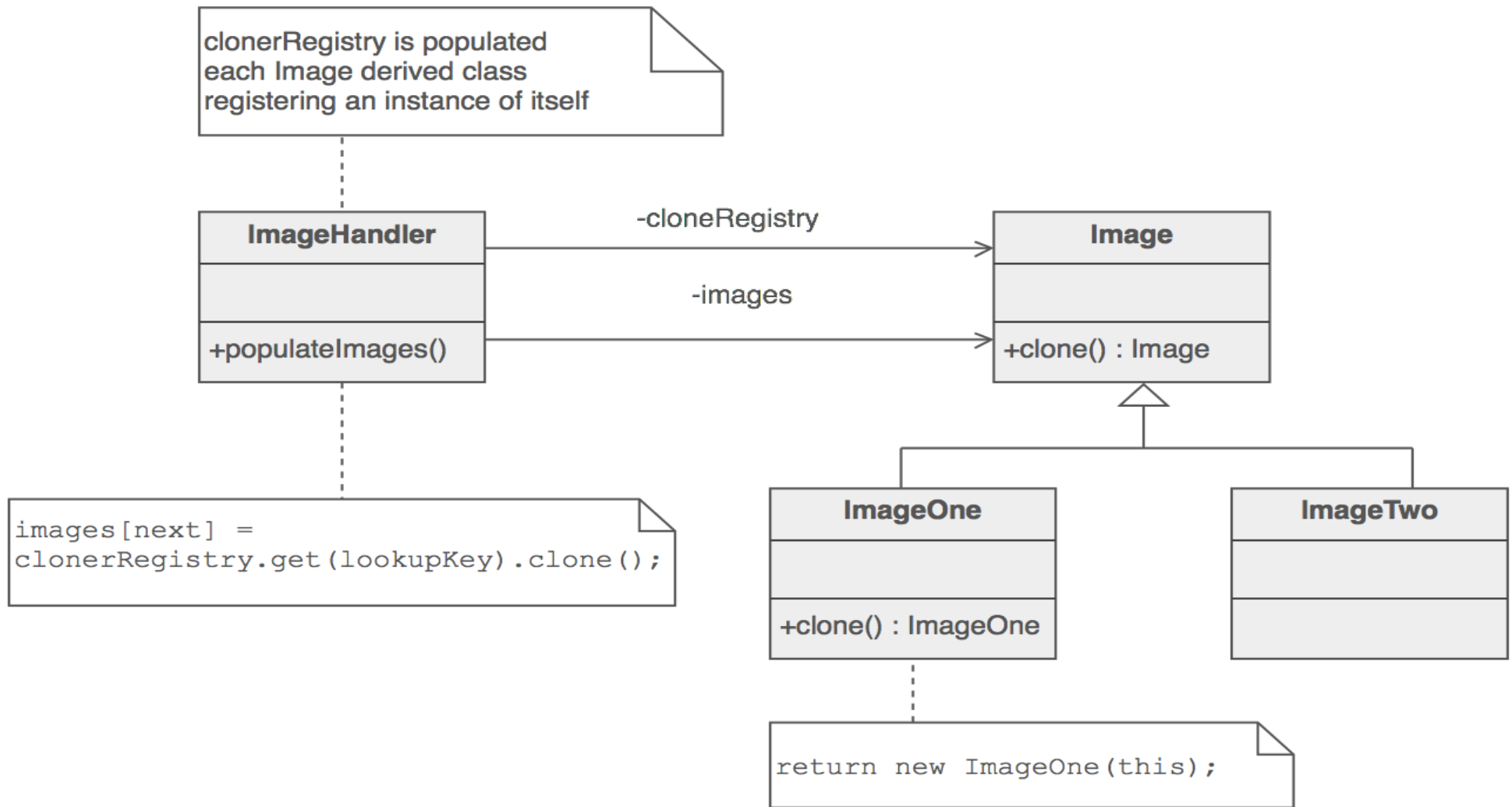


Prototype Design Pattern



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When to use Prototype?

- When creating your programs, you'll probably led to instantiate objects of significant size in memory.
- Create a large object poses little problems. But create several following may lead to kill the performance of your application.
- The solution is to copy the base object, the prototype, and then change what needs to be for the new object meets the needs.

Prototype

```
class Prototype
{
public:
    virtual ~Prototype();
    virtual Prototype* Clone() const = 0;
};

// Implementation
ClassProduct* ClassProduct::Clone() const {
    // copy constructor
    return (new ClassProduct(*this));
}
```

Example

- Develop a code to create multiple SQL DB
 - Login
 - Passwd
 - db name

Example 2

- Develop a code to create new documents
 - XML Document
 - Word File
 - Spreadsheet
- Using (Prototype + Factory)
- Using templates for generalisation

Home Assignment

- Create 2 course module
 - Online course
 - C++
 - Java
 - .Net
 - Offline course
 - Event Management
 - Professional Ethics
 - Communication Skills