TEMPLATE METHOD

Design Pattern

INTERNATIONAL ISLAMIC UNIVERSITY ISLAMABAD

Report

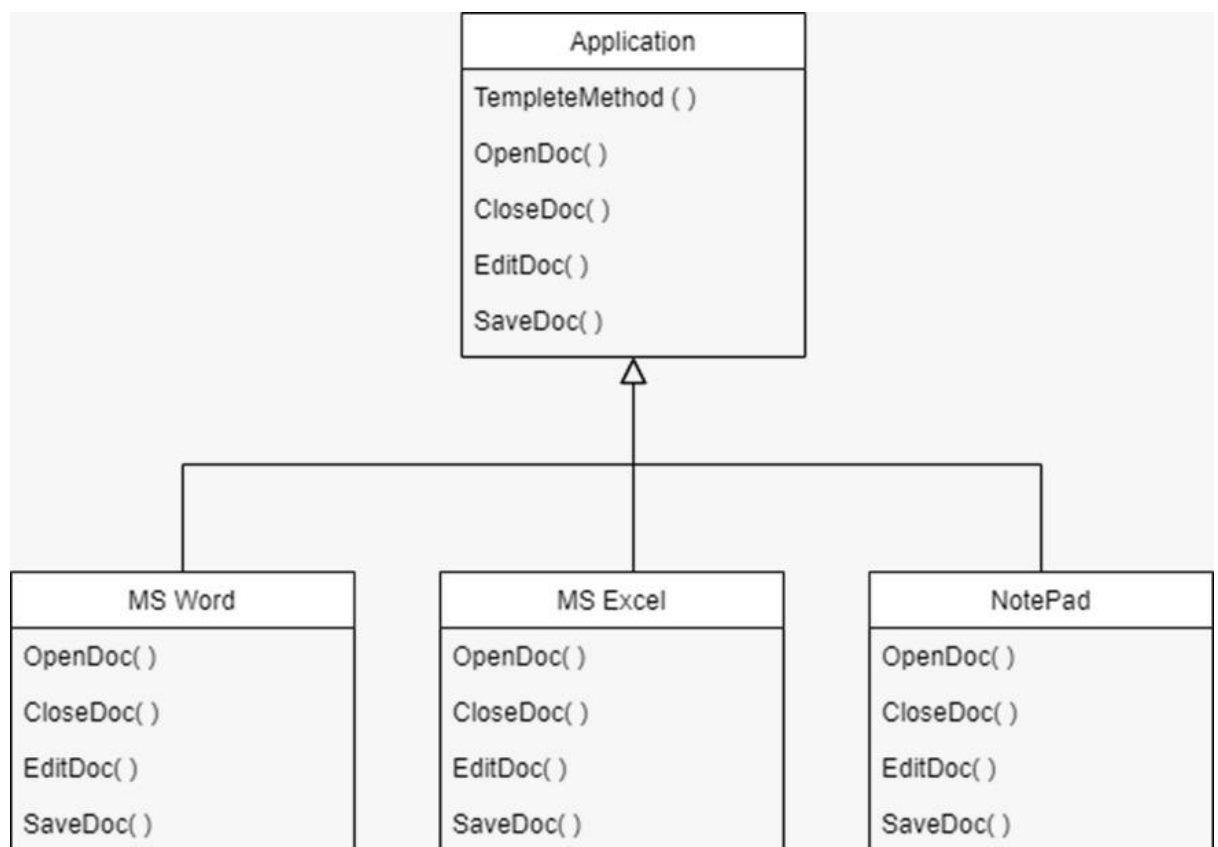|	
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For example, a word processing application like MS Word, MS Excel, Note Pad. Each application has some functionality that is common, i.e., Open Document, Close Document, Save Document, Edit Document. We can common functionality in terms of Template method and implement the concrete implementation in each sub-class.

Class Diagram:

Source Code:

```
using System;
namespace Template.Structural
{

  public class Program
  {
    public static void Main(string[] args)
```

```csharp
    {
        Application ss = new MSWord();
        ss.TemplateMethod();

        Application cc = new NotePad();
        cc.TemplateMethod();

        Console.ReadKey();
    }
}

public abstract class Application
{
    public abstract void OpenDoc();
    public abstract void CloseDoc();
    public abstract void SaveDoc();
    public abstract void EditDoc();

    public void TemplateMethod()
    {
        OpenDoc();
        CloseDoc();
        SaveDoc();
        EditDoc();
        Console.WriteLine("");
    }
}

public class MSWord : Application
{
    public override void OpenDoc()
    {
        Console.WriteLine("MS Word doc Open");
    }

    public override void CloseDoc()
    {
        Console.WriteLine("MS Word doc Close");
    }
```

```csharp
        public override void SaveDoc()
        {
            Console.WriteLine("MS Word doc Save");
        }
        public override void EditDoc()
        {
            Console.WriteLine("MS Word doc Edit");
        }
    }


    public class NotePad : Application
    {
        public override void OpenDoc()
        {
            Console.WriteLine("NotePad  doc Open");
        }
        public override void CloseDoc()
        {
            Console.WriteLine("NotePad doc Close");
        }
        public override void SaveDoc()
        {
            Console.WriteLine("NotePad doc Save");
        }
        public override void EditDoc()
        {
            Console.WriteLine("NotePad  doc Edit");
        }
    }
}
```

Output:

```
MS Word Document Open
MS Word Document Close
MS Word Document Save
MS Word Document Edit

NotePad Document Open
NotePad Document Close
NotePad Document Save
NotePad Document Edit
```