國立雲林科技大學考試答案卷

No 0448569 第 1 頁

學年	105	學期	2	日期	106, 6, 9	考別	□平時考 □期中考 ☑學期考
科目	OOSE-1					評分	
系所	IM	年級	三	學號	B10323036	姓名	[illegible] (Sheep)

+6

1. (1). Prototype ~~chain of responsibility~~ flyweight
(2) Abstract Factory
(3) Strategy
(4) Memento
(5) Proxy Iterator.
(6). Decorator
(7) Bridge, ...
(8). Command
(9). Mediator
(10) Builder.

2. +9

```
public class RTFReader {
    private Token t;
    private TextConverter tc;

    public RTFReader (TextConverter tc) {
        this.tc = tc;
    }

    public void ParseRTF() {
        while(t = get the next token) {
            switch (t.Type) {
                case CHAR:
                  tc.ConvertCharacter(t.Char);
                  continue;
                case FONT:
                  tc.Convert.FontChange(t.Font);
                  continue;
                case PARA:
                  tc.ConvertParagraph();
                  continue;
            }
        }
}
```

```
public abstract class TextConverter {
    public void ConvertCharacter(char c) {
            /* do something or do nothing */
    }
    public void ConvertFontChange(Font f) {
            /* do something or do nothing */
    }
    public void ConvertParagraph() {
            /* do something or do nothing */
    }
}
public class ASCIIConverter extends TextConverter {
    private ASCIIText at = new ASCIIText();
    public void ConvertCharacter(char c) {
            /* do something convert and set it to ASCIIText */
            at.setCharacter(c);
    }
    public ASCIIText GetASCIIText() {
            return at;
    }
}
public class TeXConverter extends TextConverter {

    private TeXText tt = new TeXText();
    public void ConvertCharacter(Char c) {
            /* do something convert and set it to TeXText */
            tt.setConvertCharacter(c);
    }
    public void ConvertFontChange(Font f) {
            /* do something convert and set it to TeXText */
            tt.setConvertFontChange(f);
    }
    public void Convert.Paragraph() {
            /*do something convert and set it to TeXText */
            tt.set ConvertParagraph(" - - - - ");
    }
    public TeXText GetTeXText() {
            return tt;
    }

}

public class TextWidgetConverter extends TextConverter {
    private TextWidget tw = new TextWidget();
    public void ConvertCharacter(Char c) {
            /* do something convert and set it to TextWidget */
            tw.setConvertCharacter(c);
    }
    public void ConvertFontChange(Font f) {
            /* do something convert and set it to TextWidget */
            tw.setConvertFontChange(f);
    }
```

→→ next Pa

```
public void ConvertParagraph() {
        /* do something convert and set it to TextWidget */
        tw.setConvertParagraph("...");
  }
 public TextWidget  getTextWidget() {
        return tw;
 }
}
```

product - 6

→ → next pa

3, (1) template Method : execute()
concrete operation : connectDB(), disconnectDB() +4
primitive operation : queryDB(). processResult() +2
factory method : getResult() : Object. +1
hook operation : ~~processResult()~~

+2 6

(2).

```
public abstract class RDBImpCmd {
        private String name;
        private Diagram diagram;
        public RDBImpCmd(String name){
            this.name = name;
        }

        public void execute() {
                connectDB();
                queryDB();
                disconnectDB();
            if ( checkProcessResult()) {
                processResult();
            }
            diagram = getResult();
        }

        public void connectDB() {
            /* connect Database */
        }

        abstract void queryDB();
        public void disconnectDB() {
            /* disconnect Database */
        }

        public void processResult() {
            /* It's hookMethod that will be override by subclass to
               provide different behavior */
        }

        public Diagram getResult() {
            return diagram;
        }
        public boolean checkProcessResult() {
            /* this is default about checkProcessResult */
            return false;
        }
```

-6

3.

語 factory Method.

國立雲林科技大學考試答案卷

№ 0448570 第 1 頁

學 年	105	學 期	2	日 期	106.6.9	考 別	☐平時考 ☐期中考 [✓ 學期考]	
科 目	OOSE - 2					評 分		
系 所	IM	年 級	三	學 號	B10323036	姓 名	[illegible]品TCP (Sheep)	

```
public class GetDiagram extends RDBImpCmd {
    private String name, result;
    public GetDiagram (String name) {
            this.name = name;
    }

    public Diagram getResult() {                 -2
            return  ~~super. diagram~~;
    }

    public void queryDB() {
        /* Query the database to retrieve the diagram data */
    }
-2  public boolean checkProcessResult() {
        if ( result != null ) {     ~~// Is there has~~ result, then return true;
          return true;
        } else {
          return false;
    }

    public void processResult() {
            /* Create a diagram and populate it with query
            result */
    }
}

public class SaveDiagram extends RDBImpCmd {
    private StateDiagram d;
    private string result;
    public SaveDiagram (StateDiagram d) {
            this.d = d;
    }

    public Diagram getResult() {                 -2
            return ~~super. diagram~~;
    }
    public void queryDB() {
        /* save diagram to database */
    }
    public boolean checkProcessResult() {
        if (result != null    ){                    /* Is there has result
            return true;                               It will return true
        } else {
            return false;
        }
    }
    public void processResult() {
        /* do nothing */
    }
}
```

(3).
```
public abstract class Diagram {          // this is Abstract Product
        private String name;
        public Diagram(String name){
            this.name =name;
        }
        abstract void draw();
}

public class StateDiagram extends Diagram {      // this is Concrete Product.
        public StateDiagram(String name) {
            super(name);
        }
        public void draw() {
            /* draw the state Diagram */
        }
}
```

```
public class ClassDiagram extends Diagram {        // concrete Product
    public ClassDiagram(String name)
        super(name);
    }
    public void draw() {
        /* draw the Class diagram */
    }
}
public class UseCaseDiagram extends Diagram.        // Concrete Product
    public UseCaseDiagram ( String name) {
        super(name);
    }
    public void draw() {
        /* draw use case diagram */
    }
}

public class GetStateDiagram extends GetDiagram {
    private String result.;
    public GetStateDiagram (String name) {
        super(name);
    }
    public Diagram getResult () {
        return new StateDiagram (name);

    }

    public void queryDB() {
        /* do query to retrieve the diagram; */
    }
    public void processResult() {
        /* create a diagram and populate with query result,
    }
    public boolean processResult() {
        if ( result != null ) {
            return true;
        } else {
            return false;
        }
    }
}
```

```
private
String result  public class GetClassDiagram extends GetDiagram {
    public GetClassDiagram(String name) {
        super(name);
    }
    public Diagram getResult() {
        return new ClassDiagram(name);
    }
    public void queryDB() {
        /* Query the Database to retrieve the diagram */
    }
    public boolean checkProcessResult() {
        If (result != null) {
            return true;
        } else {
            return false
        }
    }
    public void processResult() {
        /* create a  diagram and populate It with query result */
    }
}
public class GetUseCaseDiagram extends GetDiagram {
    private String result;
    public GetUseCaseDiagram(String name) {
        Super(name);
    }
    public Diagram getResult() {
        return new UseCaseDiagram(name);
    }
    public void queryDB() {
        /* Query the Database to retrieve the diagram */
    }
    public boolean checkProcessResult() {
        If (result != null) {
            return true;
        } else {
            return false;
        }
    }

    public void processResult() {
        /* create a diagram and populate It with query result */
    }
}
```