**Abstract Factory Pattern Example: Parser**

**Abstra: AbstractParserFactory**

**public** **interface** AbstractParserFactory {

**public** XMLParser getParserInstance(String parserType);

}

**Class: ParserFactoryProducer**

**public** **final** **class** ParserFactoryProducer {

**private** ParserFactoryProducer(){

**throw** **new** AssertionError();

}

**public** **static** AbstractParserFactory getFactory(String factoryType){

**switch**(factoryType)

{

**case** "NYFactory": **return** **new** NYParserFactory();

**case** "TWFactory": **return** **new** TWParserFactory();

}

**return** **null**;

}

}

**Class: NYParserFactory**

**public** **class** NYParserFactory **implements** AbstractParserFactory {

@Override

**public** XMLParser getParserInstance(String parserType) {

**switch**(parserType){

**case** "NYERROR": **return** **new** NYErrorXMLParser();

**case** "NYFEEDBACK": **return** **new** NYFeedbackXMLParser();

**case** "NYORDER": **return** **new** NYOrderXMLParser();

**case** "NYRESPONSE": **return** **new** NYResponseXMLParser();

}

**return** **null**;

}

}

**Class: Interface XMLParser**

**public** **interface** XMLParser {

**public** String parse();

}

**Class: NYErrorXMLParser**

**public** **class** NYErrorXMLParser **implements** XMLParser{

@Override

**public** String parse() {

System.***out***.println("NY Parsing error XML...");

**return** "NY Error XML Message";

}

}

**Class: NYFeedbackXMLParser**

**public** **class** NYFeedbackXMLParser **implements** XMLParser{

@Override

**public** String parse() {

System.***out***.println("NY Parsing feedback XML...");

**return** "NY Feedback XML Message";

}

}

**Class: NYOrderXMLParser**

**public** **class** NYOrderXMLParser **implements** XMLParser{

@Override

**public** String parse() {

System.***out***.println("NY Parsing order XML...");

**return** "NY Order XML Message";

}

}

**Class: NYResponseParser**

**public** **class** NYResponseXMLParser **implements** XMLParser{

@Override

**public** String parse() {

System.***out***.println("NY Parsing response XML...");

**return** "NY Response XML Message";

}

}

**Class: TWParserFactory**

**public** **class** TWParserFactory **implements** AbstractParserFactory {

@Override

**public** XMLParser getParserInstance(String parserType) {

**switch**(parserType){

**case** "TWERROR": **return** **new** TWErrorXMLParser();

**case** "TWFEEDBACK": **return** **new** TWFeedbackXMLParser();

**case** "TWORDER": **return** **new** TWOrderXMLParser();

**case** "TWRESPONSE": **return** **new** TWResponseXMLParser();

}

**return** **null**;

}

}

**Class: TWErrorXMLParser**

**public** **class** TWErrorXMLParser **implements** XMLParser{

@Override

**public** String parse() {

System.***out***.println("TW Parsing error XML...");

**return** "TW Error XML Message";

}

}

**Class: TWFeedbackXMLParser**

**public** **class** TWFeedbackXMLParser **implements** XMLParser{

@Override

**public** String parse() {

System.***out***.println("TW Parsing feedback XML...");

**return** "TW Feedback XML Message";

}

}

**Class: TWOrderXMLParser**

**public** **class** TWOrderXMLParser **implements** XMLParser{

@Override

**public** String parse() {

System.***out***.println("TW Parsing order XML...");

**return** "TW Order XML Message";

}

}

**Class: TWResponseXMLParser**

**public** **class** TWResponseXMLParser **implements** XMLParser{

@Override

**public** String parse() {

System.***out***.println("TW Parsing response XML...");

**return** "TW Response XML Message";

}

}

**Class: TestAbstractFactoryPattern**

**public** **class** TestAbstractFactoryPattern {

**public** **static** **void** main(String[] args) {

AbstractParserFactory parserFactory = ParserFactoryProducer.*getFactory*("NYFactory");

XMLParser parser = parserFactory.getParserInstance("NYORDER");

String msg="";

msg = parser.parse();

System.***out***.println(msg);

System.***out***.println("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*");

parserFactory = ParserFactoryProducer.*getFactory*("TWFactory");

parser = parserFactory.getParserInstance("TWFEEDBACK");

msg = parser.parse();

System.***out***.println(msg);

}

}

Result:

NY Parsing order XML...

NY Order XML Message

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

TW Parsing feedback XML...

TW Feedback XML Message