

// 1. File write and read

```
def file = new File("myname.txt")  
file.write("Vaishu")  
println file.text
```

// 2. Try-Catch-Finally for divide-by-zero and file-not-found

```
try {  
    def result = 10 / 0 // Intentional divide by zero  
} catch (ArithmeticException e) {  
    println "Error: Divide by zero"  
} finally {  
    println "Division block finished"  
}
```

```
try {  
    def missingFile = new File("no_such_file.txt")  
    println missingFile.text  
} catch (FileNotFoundException e) {  
    println "Error: File not found"  
} finally {  
    println "File reading block finished"  
}
```

// 3. methodMissing and propertyMissing example

```
class MyClass {  
    def knownProperty = "I'm known"  
  
    def methodMissing(String name, args) {  
        println "Method ${name} is not defined"  
    }  
}
```

```
def propertyMissing(String name) {  
    println "Property '${name}' not found, returning default."  
    return "undefined"  
}  
}
```

```
def obj = new MyClass()  
obj.unknownMethod()  
println obj.unknownProperty
```

// 4. Metaprogramming: Dynamically add property

```
class DynamicBean {}
```

```
def dynamicObj = new DynamicBean()  
dynamicObj.metaClass.dynamicProp = "I was added at runtime"  
println dynamicObj.dynamicProp
```

// Dynamically add a method

```
dynamicObj.metaClass.sayHello = { println "Hello from a dynamic method!" }  
dynamicObj.sayHello()
```