1.Read and write to a file in Groovy. Write your name and read it back.

PROGRAM:

```
def file=new File("name.txt")
file.text="sivara"
def content=file.text
println "The name read from the file is: $content"
```

2.Use try-catch-finally to handle divide-by-zero and file-not-found errors.

PROGRAM:

```
try {
    def result = 10 / 0
    println "Result: $result"
    def file = new File("name.txt")
    println "File content: ${file.text}"
  }
catch (ArithmeticException e) {
    println "Error: Division by zero."

  }
catch (FileNotFoundException e) {
    println "Error: File not found."

  }
finally {
    println "Done handling exceptions."
}
```

3.Use methodMissing in a class to handle any unknown method call by printing: "Method {methodName} is not defined".

PROGRAM:

```
class DynamicHandler {
    def methodMissing(String name, args) {
        println "Method '${name}' is not defined"
    }
}
def obj=new DynamicHandler()
obj.sayHello()
obj.calculate(5, 10)
```

4.Use propertyMissing to return a default value "undefined" for any unknown property.

PROGRAM:

```
class PropertyHandler {
    def propertyMissing(String name) {
        return "undefined"
    }
}
def obj=new PropertyHandler()
println obj.name
println obj.age
println obj.anything
```

5.Create a Groovy class that uses metaprogramming to dynamically modify its properties at runtime.

PROGRAM:

```
class Person {
```

```
    String name
}
def p=new Person(name: "sivara")
p.metaClass.age=20
println "Name: ${p.name}"
println "Age: ${p.age}"
```