

MASTER OF SCIENCE IN INFORMATION TECHNOLOGY SPECIALIZING IN
ENTERPRISE APPLICATIONS DEVELOPMENT
SLIIT METROPOLITAN CAMPUS
BOC MERCHANT TOWER, No #28, ST MICHAEL'S ROAD,
COLOMBO 03, SRI LANKA

Enterprise Software Analysis & Design

SE5060: EXERCISE 11

N. G. Pradeep Sanjaya

MS20921576

September 23, 2020

ANSWER

Github - <https://github.com/pradeep-sanjaya/ead-esad-exercise11>

Classes

FilterTest.java

```
package com.sliit;

public class FilterTest {
    public static void main(String[] args) {
        Filter filter = new AuthenticationFilter(
            new DebuggingFilter(
                new InputValidationFilter(null)
            )
        );
        filter.execute();

        System.out.println();
        new AuthenticationFilter(new DebuggingFilter(null)).execute();

        System.out.println();
        new AuthenticationFilter(null).execute();

        System.out.println();
        new InputValidationFilter(new DebuggingFilter(
            new AuthenticationFilter(null)
        )).execute();
    }
}
```

Filter.java

```
package com.sliit;

public interface Filter {
    void execute();
}
```

AbstractFilter.java

```
package com.sliit;

public class AbstractFilter implements Filter {
    Filter filter;

    public AbstractFilter(Filter filter) {
        this.filter = filter;
    }
}
```

```

    @Override
    public void execute() {
        if (filter != null) {
            filter.execute();
        }
    }
}

```

AuthenticationFilter.java

```

package com.sliit;

public class AuthenticationFilter extends AbstractFilter {

    public AuthenticationFilter(Filter filter) {
        super(filter);
    }

    @Override
    public void execute() {
        System.out.println("Authentication_Filter");
        super.execute();
    }
}

```

DebuggingFilter.java

```

package com.sliit;

public class DebuggingFilter extends AbstractFilter {

    public DebuggingFilter(Filter filter) {
        super(filter);
    }

    @Override
    public void execute() {
        System.out.println("Debugging_Filter");
        super.execute();
    }
}

```

Chicken.java

```

package com.sliit;

public class InputValidationFilter extends AbstractFilter {

    public InputValidationFilter(Filter filter) {

```

```

    super( filter );
}

@Override
public void execute() {
    System.out.println("Input_Validation_Filter");
    super.execute();
}
}

```

Screenshots

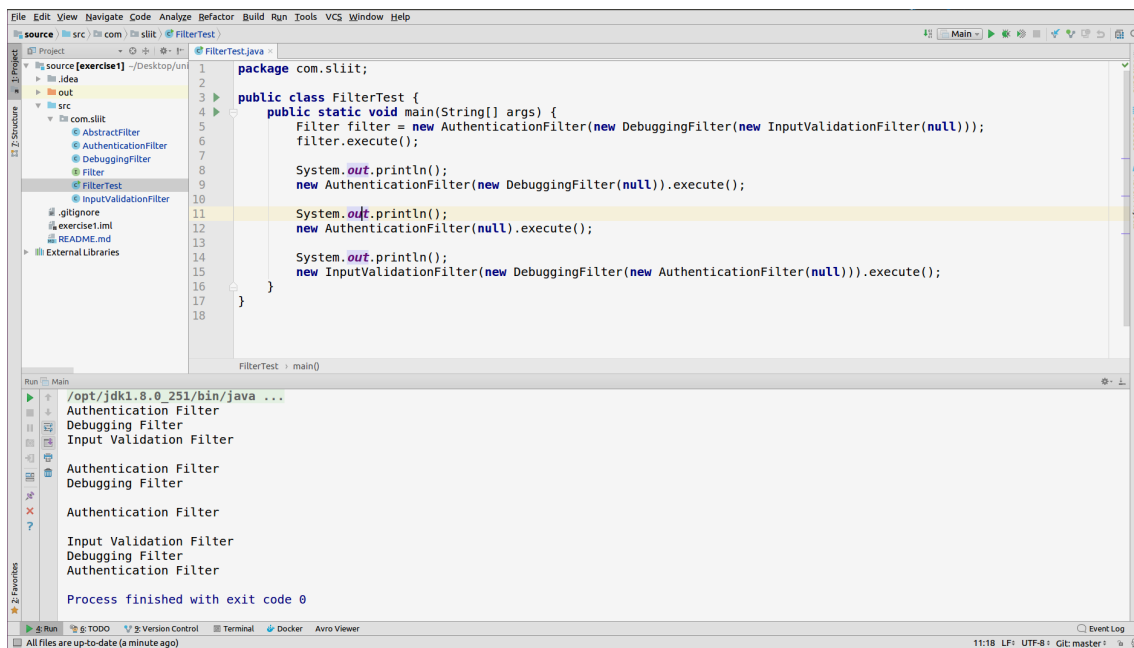


Figure 0.1: Solution

REFERENCES

- [1] Samarathunge, U. (2020) Lecture-04 - Presentation Layer Patterns.pptx