

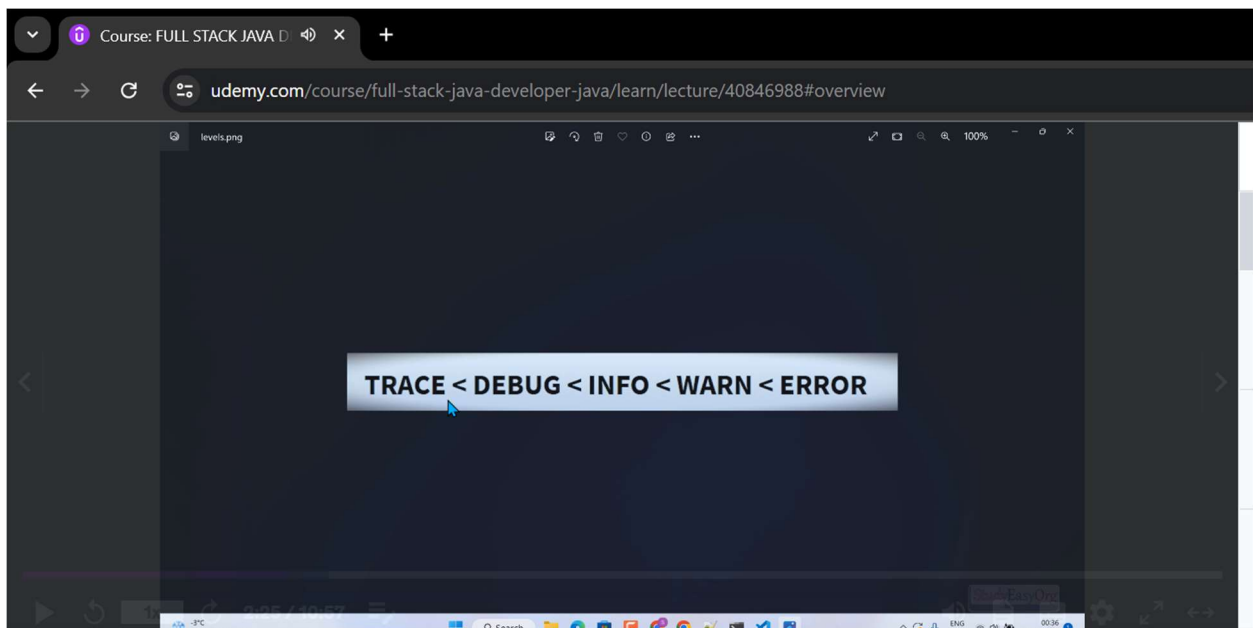
Spring Boot – Spring Boot Logging

In HomeController.java -> add below piece of code

```
//Adding Logger
Logger logger = LoggerFactory.getLogger(HomeController.class);

@GetMapping("/")
public List<Post> home() {
    logger.error("This is a test log error");
    return postService.findAll();
}
```

Structure



Trace: General working of the application

Debug: Checking every possible scenario where there could be an issue

Info:

Warn:

Error:

Output(In Console)

Servlet'

```
2024-07-27    23:48:57.476      INFO    20320    ---    [nio-8080-exec-4]
o.s.web.servlet.DispatcherServlet : Initializing Servlet 'dispatcherServlet'

2024-07-27    23:48:57.479      INFO    20320    ---    [nio-8080-exec-4]
o.s.web.servlet.DispatcherServlet : Completed initialization in 1 ms

2024-07-27    23:48:57.482      ERROR    20320    ---    [nio-8080-exec-4]
o.s.S.controller.HomeRestController : This is a test log error

2024-07-27    23:48:58.291      INFO    20320    ---    [ restartedMain]
.ConditionEvaluationDeltaLoggingListener : Condition evaluation unchanged

2024-07-27    23:49:01.111      ERROR    20320    ---    [nio-8080-exec-7]
o.s.S.controller.HomeRestController : This is a test log error
```

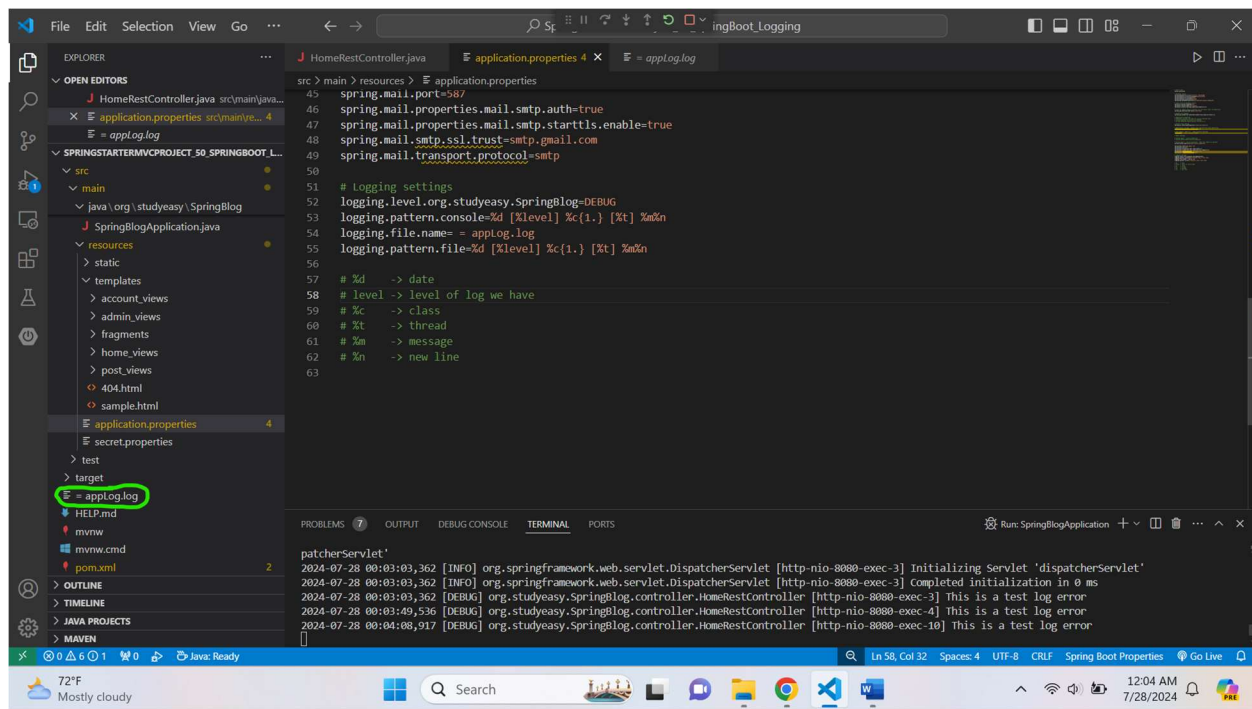
Storing the logs

In application.properties -> add below piece of code

```
# Logging settings
logging.level.org.studyeasy.SpringBlog=DEBUG
logging.pattern.console=%d [%level] %c{1.} [%t] %m%n
logging.file.name= = appLog.log
logging.pattern.file=%d [%level] %c{1.} [%t] %m%n

# %d    -> date
# level -> level of log we have
# %c    -> class
# %t    -> thread
# %m    -> message
# %n    -> new line
```

Output



In applog.log -> it will look like below

```
2024-07-28 00:02:52,404 [INFO] org.studyeasy.SpringBlog.SpringBlogApplication
[restartedMain] Starting SpringBlogApplication using Java 17.0.11 on Lenovo with
PID 10324 (D:\RECYCLE BIN
EXTRAS\ONLY_DOCS\JavaUdemy\Java_SpringBoot_MiniProject_01_Continued_DifferentVers
ion_2\SpringStarterMVCPProject_50_SpringBoot_Logging\target\classes started by
Lenovo in D:\RECYCLE BIN
EXTRAS\ONLY_DOCS\JavaUdemy\Java_SpringBoot_MiniProject_01_Continued_DifferentVers
ion_2\SpringStarterMVCPProject_50_SpringBoot_Logging)
2024-07-28 00:02:52,404 [DEBUG] org.studyeasy.SpringBlog.SpringBlogApplication
[restartedMain] Running with Spring Boot v2.7.5, Spring v5.3.23
2024-07-28 00:02:52,404 [INFO] org.studyeasy.SpringBlog.SpringBlogApplication
[restartedMain] No active profile set, falling back to 1 default profile:
"default"
2024-07-28 00:02:52,796 [INFO]
org.springframework.data.repository.config.RepositoryConfigurationDelegate
[restartedMain] Bootstrapping Spring Data JPA repositories in DEFAULT mode.
2024-07-28 00:02:52,827 [INFO]
org.springframework.data.repository.config.RepositoryConfigurationDelegate
[restartedMain] Finished Spring Data repository scanning in 26 ms. Found 3 JPA
repository interfaces.
2024-07-28 00:02:52,985 [INFO]
org.springframework.boot.web.embedded.tomcat.TomcatWebServer [restartedMain]
Tomcat initialized with port(s): 8080 (http)
```

```
2024-07-28 00:02:52,986 [INFO] org.apache.catalina.core.StandardService
[restartedMain] Starting service [Tomcat]
2024-07-28 00:02:52,986 [INFO] org.apache.catalina.core.StandardEngine
[restartedMain] Starting Servlet engine: [Apache Tomcat/9.0.68]
2024-07-28 00:02:53,009 [INFO]
org.apache.catalina.core.ContainerBase.[Tomcat].[localhost].[/] [restartedMain]
Initializing Spring embedded WebApplicationContext
2024-07-28 00:02:53,009 [INFO]
org.springframework.boot.web.servlet.context.ServletWebServerApplicationContext
[restartedMain] Root WebApplicationContext: initialization completed in 605 ms
2024-07-28 00:02:53,027 [INFO] com.zaxxer.hikari.HikariDataSource [restartedMain]
HikariPool-3 - Starting...
2024-07-28 00:02:53,042 [INFO] com.zaxxer.hikari.HikariDataSource [restartedMain]
HikariPool-3 - Start completed.
2024-07-28 00:02:53,043 [INFO]
org.springframework.boot.autoconfigure.h2.H2ConsoleAutoConfiguration
[restartedMain] H2 console available at '/db-console'. Database available at
'jdbc:h2:file:./db/blogdb'
2024-07-28 00:02:53,079 [INFO] org.hibernate.jpa.internal.util.LogHelper
[restartedMain] HHH000204: Processing PersistenceUnitInfo [name: default]
2024-07-28 00:02:53,089 [INFO] org.hibernate.dialect.Dialect [restartedMain]
HHH000400: Using dialect: org.hibernate.dialect.H2Dialect
2024-07-28 00:02:53,191 [INFO]
org.hibernate.engine.transaction.jta.platform.internal.JtaPlatformInitiator
[restartedMain] HHH000490: Using JtaPlatform implementation:
[org.hibernate.engine.transaction.jta.platform.internal.NoJtaPlatform]
2024-07-28 00:02:53,192 [INFO]
org.springframework.orm.jpa.LocalContainerEntityManagerFactoryBean
[restartedMain] Initialized JPA EntityManagerFactory for persistence unit
'default'
2024-07-28 00:02:53,366 [INFO]
org.springframework.security.web.DefaultSecurityFilterChain [restartedMain] Will
secure any request with
[org.springframework.security.web.session.DisableEncodeUrlFilter@752c259a,
org.springframework.security.web.context.request.async.WebAsyncManagerIntegration
Filter@fffd97b4,
org.springframework.security.web.context.SecurityContextPersistenceFilter@7b78a81
e, org.springframework.security.web.header.HeaderWriterFilter@6510c06f,
org.springframework.security.web.authentication.logout.LogoutFilter@79df9d71,
org.springframework.security.web.authentication.UsernamePasswordAuthenticationFil
ter@4517f79c,
org.springframework.security.web.authentication.www.BasicAuthenticationFilter@a0a
d09b,
org.springframework.security.web.savedrequest.RequestCacheAwareFilter@5af8b618,
org.springframework.security.web.servletapi.SecurityContextHolderAwareRequestFilt
```

```
er@39080690,  
org.springframework.security.web.authentication.rememberme.RememberMeAuthenticati  
onFilter@46e83a0c,  
org.springframework.security.web.authentication.AnonymousAuthenticationFilter@8c2  
f41d, org.springframework.security.web.session.SessionManagementFilter@6d726bb6,  
org.springframework.security.web.access.ExceptionTranslationFilter@3ee3f859,  
org.springframework.security.web.access.intercept.FilterSecurityInterceptor@4976c  
5ed]  
2024-07-28 00:02:53,389 [WARN]  
org.springframework.boot.autoconfigure.orm.jpa.JpaBaseConfiguration$JpaWebConfigu  
ration [restartedMain] spring.jpa.open-in-view is enabled by default. Therefore,  
database queries may be performed during view rendering. Explicitly configure  
spring.jpa.open-in-view to disable this warning  
2024-07-28 00:02:53,544 [INFO]  
org.springframework.boot.devtools.autoconfigure.OptionalLiveReloadServer  
[restartedMain] LiveReload server is running on port 35729  
2024-07-28 00:02:53,564 [INFO]  
org.springframework.boot.web.embedded.tomcat.TomcatWebServer [restartedMain]  
Tomcat started on port(s): 8080 (http) with context path ''  
2024-07-28 00:02:53,571 [INFO] org.studyeasy.SpringBlog.SpringBlogApplication  
[restartedMain] Started SpringBlogApplication in 1.211 seconds (JVM running for  
69.344)  
2024-07-28 00:02:54,078 [INFO]  
org.springframework.boot.devtools.autoconfigure.ConditionEvaluationDeltaLoggingLi  
stener [restartedMain] Condition evaluation unchanged  
2024-07-28 00:03:03,362 [INFO]  
org.apache.catalina.core.ContainerBase.[Tomcat].[localhost].[/] [http-nio-8080-  
exec-3] Initializing Spring DispatcherServlet 'dispatcherServlet'  
2024-07-28 00:03:03,362 [INFO] org.springframework.web.servlet.DispatcherServlet  
[http-nio-8080-exec-3] Initializing Servlet 'dispatcherServlet'  
2024-07-28 00:03:03,362 [INFO] org.springframework.web.servlet.DispatcherServlet  
[http-nio-8080-exec-3] Completed initialization in 0 ms  
2024-07-28 00:03:03,362 [DEBUG]  
org.studyeasy.SpringBlog.controller.HomeRestController [http-nio-8080-exec-3]  
This is a test log error  
2024-07-28 00:03:49,536 [DEBUG]  
org.studyeasy.SpringBlog.controller.HomeRestController [http-nio-8080-exec-4]  
This is a test log error  
2024-07-28 00:04:08,917 [DEBUG]  
org.studyeasy.SpringBlog.controller.HomeRestController [http-nio-8080-exec-10]  
This is a test log error
```

Updated HomeRestController.java

```

package org.studyeasy.SpringBlog.controller;

import java.util.List;

import org.slf4j.Logger;
import org.slf4j.LoggerFactory;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.web.bind.annotation.GetMapping;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RestController;
import org.studyeasy.SpringBlog.models.Post;
import org.studyeasy.SpringBlog.services.PostService;

@RestController
@RequestMapping("/api/v1")
public class HomeRestController {

    @Autowired
    private PostService postService;

    //Adding Logger
    Logger logger = LoggerFactory.getLogger(HomeRestController.class);

    @GetMapping("/")
    public List<Post> home() {
        logger.debug("This is a test log error");
        return postService.findAll();
    }

    // @GetMapping("/")
    // public List<Post> home() {
    //     logger.error("This is a test log error");
    //     return postService.findAll();
    // }

    // @GetMapping("/")
    // public String home() {
    //     logger.error("This is a test log error");
    //     return "sample response";
    // }

    // @GetMapping("/")
    // public List<Post> home() {
    //     return postService.findAll();
    // }

```

```
//-----xxxx Demo Display xxxxx-----  
-----  
// @GetMapping("/")  
// public List<String> home() {  
//     return List.of("Post 1", "Post 2", "Post 3");  
// }  
}
```

```
2024-07-28 00:04:08,917 [DEBUG]  
org.studyeasy.SpringBlog.controller.HomeRestController [http-nio-8080-exec-10]  
This is a test log error
```

[DEBUG] -> This is the level like debug, error and more.