Sri Lanka Institute of Information Technology



Bachelor of Science (Hons) in Information Technology Specialized in Information Technology

Modern Topics in IT – (IT4020)

OSGi Assignment Marking Rubric Assignment 01 Report -2022

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Group ID: MTIT-034

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Individual Work Allocation

|  |  |  |
| --- | --- | --- |
| Student Name | IT Number | Work Allocation |
| IT18220834 | Wijethilaka R.G.K.H | **Cashier** – Manifest implementation, all commands run with OSGI framework (Publisher and Subscriber) |
| IT18220834 | Balasooriya T.D | **Lecturer** – Manifest implementation, all commands run with OSGI framework (Publisher and Subscriber) |
| IT18212600 | Perera C.A.R.P | **Undergraduate** - Manifest implementation, all commands run with OSGI framework (Publisher and Subscriber) |
| IT18219944 | Hashan P.G.B | **Course** – Manifest implementation, all commands run with OSGI framework (Publisher and Subscriber) |

Contents

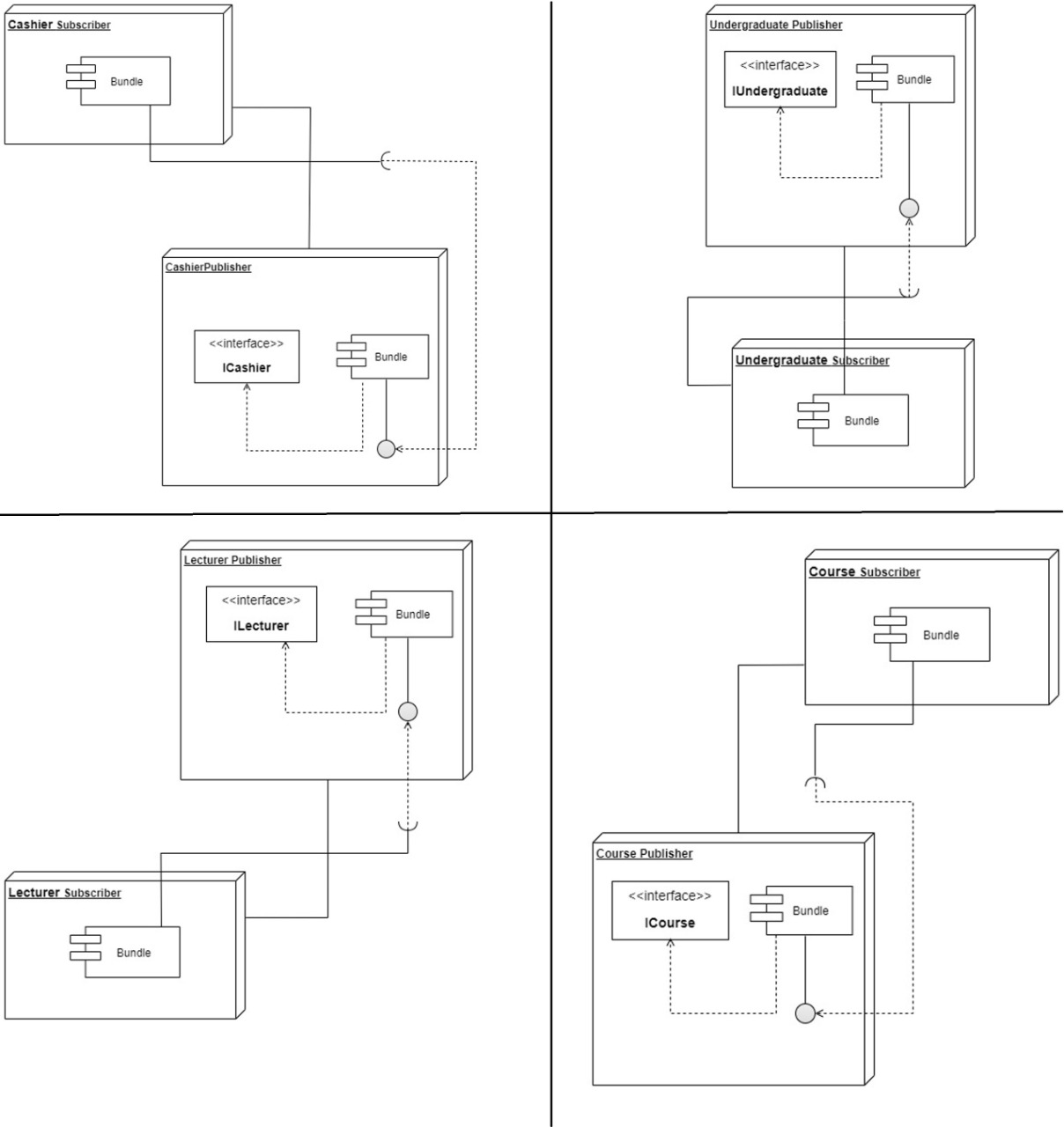
1. [Explain the Scenario using a diagram 3](#_bookmark0)
   1. [Component Diagram 3](#_bookmark1)
   2. [Activity Diagram 4](#_bookmark2)
2. [Manifest implementation 5](#_bookmark3)
   1. [Exported services. 5](#_bookmark4)
   2. [Imported services. 5](#_bookmark5)
   3. [Manifest implementation images 5](#_bookmark6)
      1. [Student Publisher 5](#_bookmark7)
      2. [Teacher Publisher 6](#_bookmark8)
      3. [Subject Publisher 6](#_bookmark9)
      4. [Assign Publisher 7](#_bookmark10)
      5. [Admin Subscriber 7](#_bookmark11)
3. [All commands of bundle install and run in OSGi framework. 8](#_bookmark12)

[1. Run project in eclipse. 8](#_bookmark13)

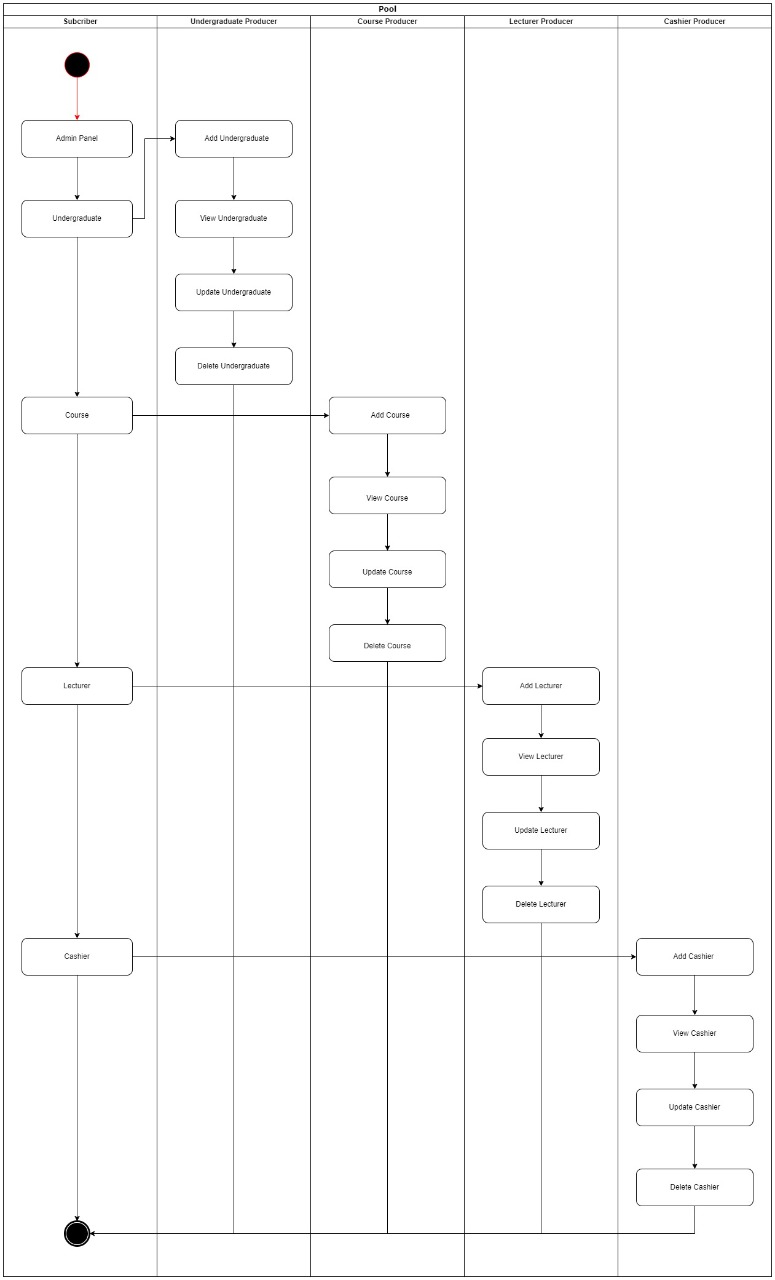
1. [Sample screenshots of its behavior & outputs. 9](#_bookmark14)
   1. [Main interface 9](#_bookmark15)
   2. [Student service interfaces 9](#_bookmark16)
   3. [Subject service interfaces 10](#_bookmark17)
   4. [Teacher service interfaces 11](#_bookmark18)
   5. [Assign service interfaces. 12](#_bookmark19)

# Explain the Scenario using a diagram.

## Component Diagram



## Activity Diagram



1. Manifest implementation

## Exported services.

* + - Undergraduate Publisher – undergraduatepublisher
    - Lecturer Publisher – lecturerpublisher
    - Course Publisher – coursepublisher
    - Cashier Publisher – cashierpublisher

## Imported services.

* + - Undergraduate Publisher – org.osgi.framework;version="1.3.0"
    - Lecturer Publisher – org.osgi.framework;version="1.3.0"
    - Course Publisher – org.osgi.framework;version="1.3.0"
    - Cashier Publisher – org.osgi.framework;version="1.3.0", undergraduatepublisher, coursepublisher
    - Undergraduate Subscriber - org.osgi.framework;version="1.3.0", undergraduatepublisher
    - Lecturer Subscriber - org.osgi.framework;version="1.3.0", lecturerpublisher
    - Course Subscriber - org.osgi.framework;version="1.3.0", coursepublisher
    - Cashier Subscriber - org.osgi.framework;version="1.3.0", cashierpublisher

## Manifest implementation images

### Undergraduate Publisher

### 

### Lecturer Publisher

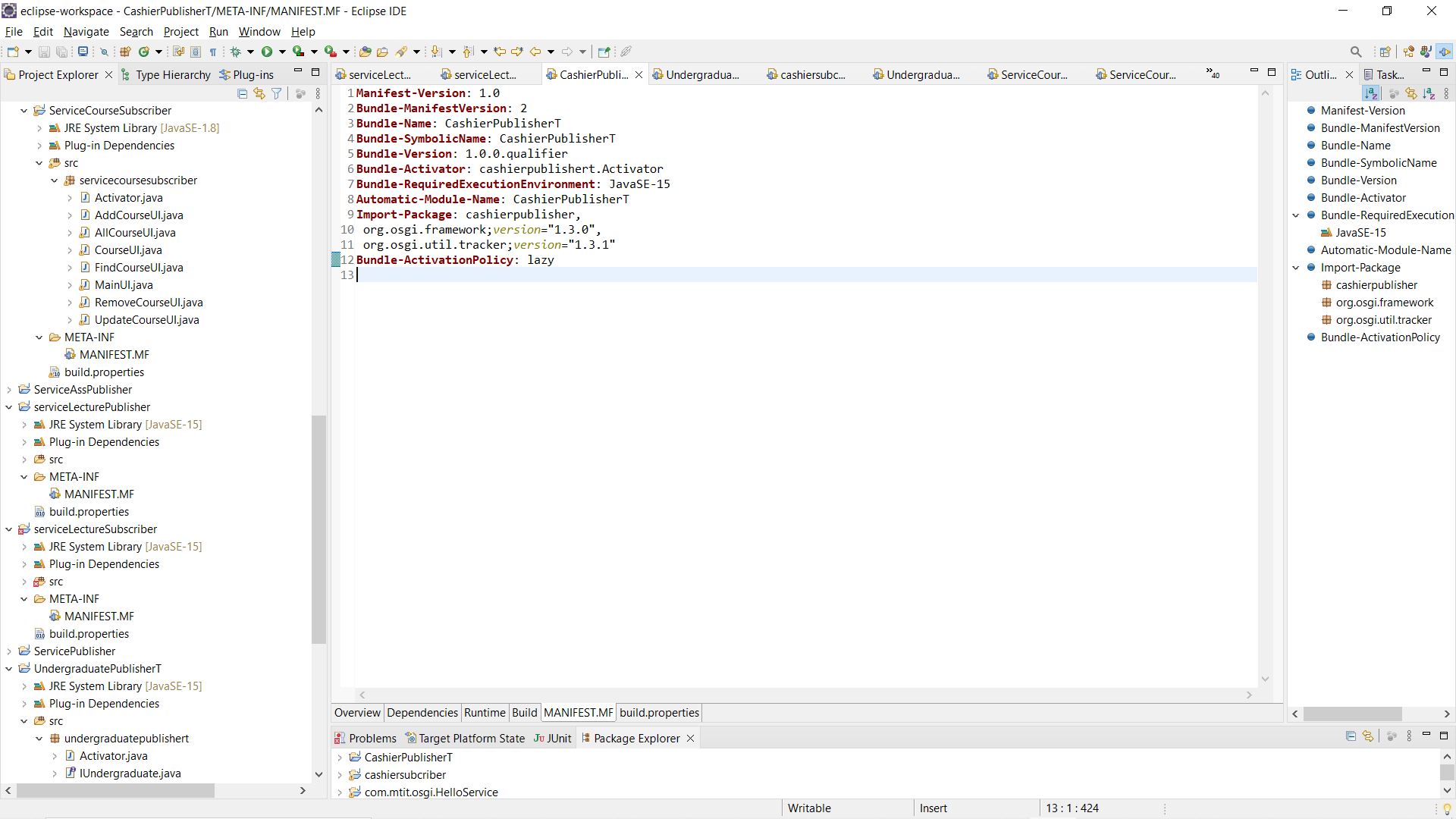
A screenshot of a computer

Description automatically generated

### Course Publisher

### 

### Cashier Publisher



### Undergraduate Subscriber

### 

### Lecturer Subscriber

### 

### Course Subscriber

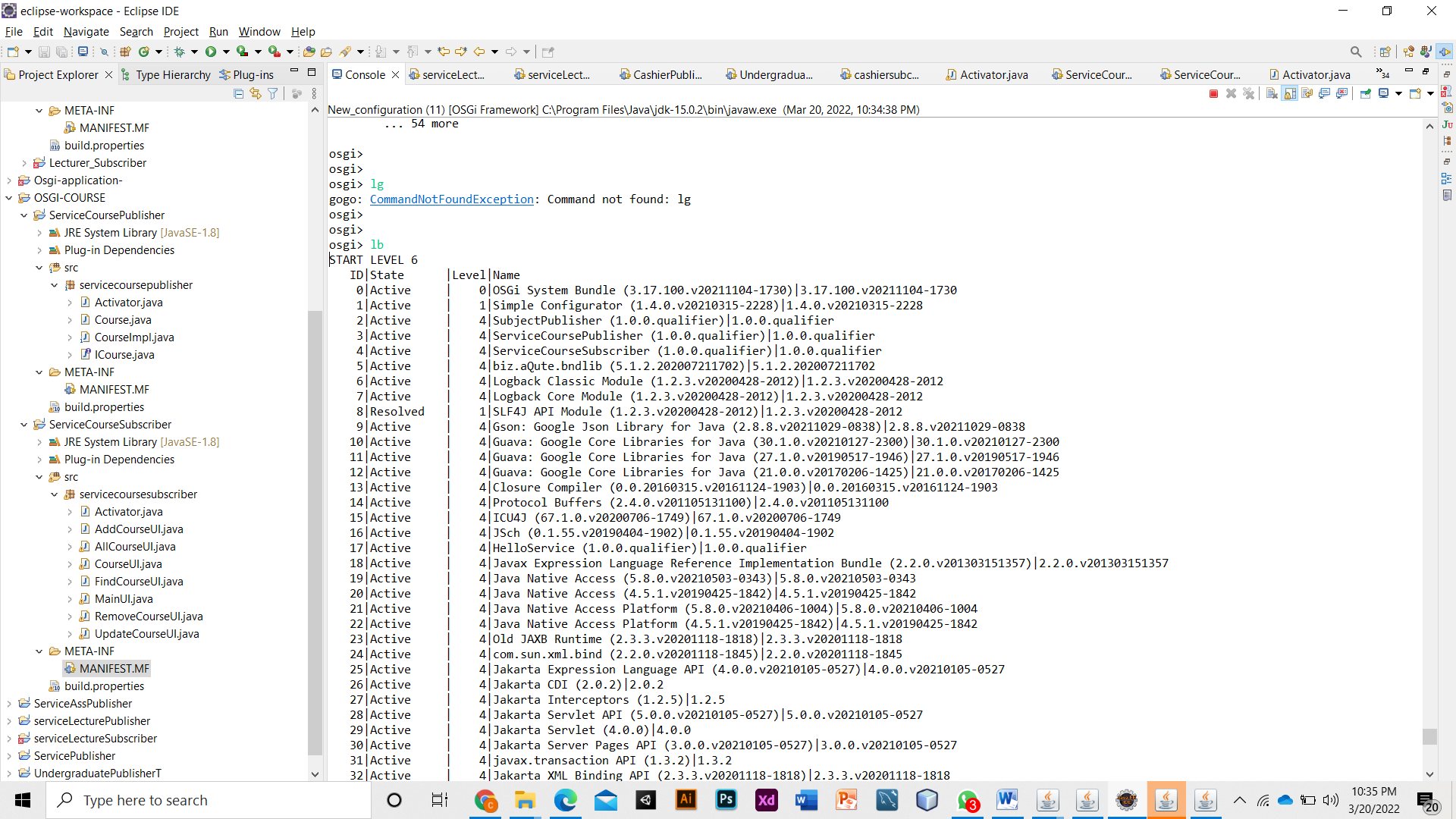
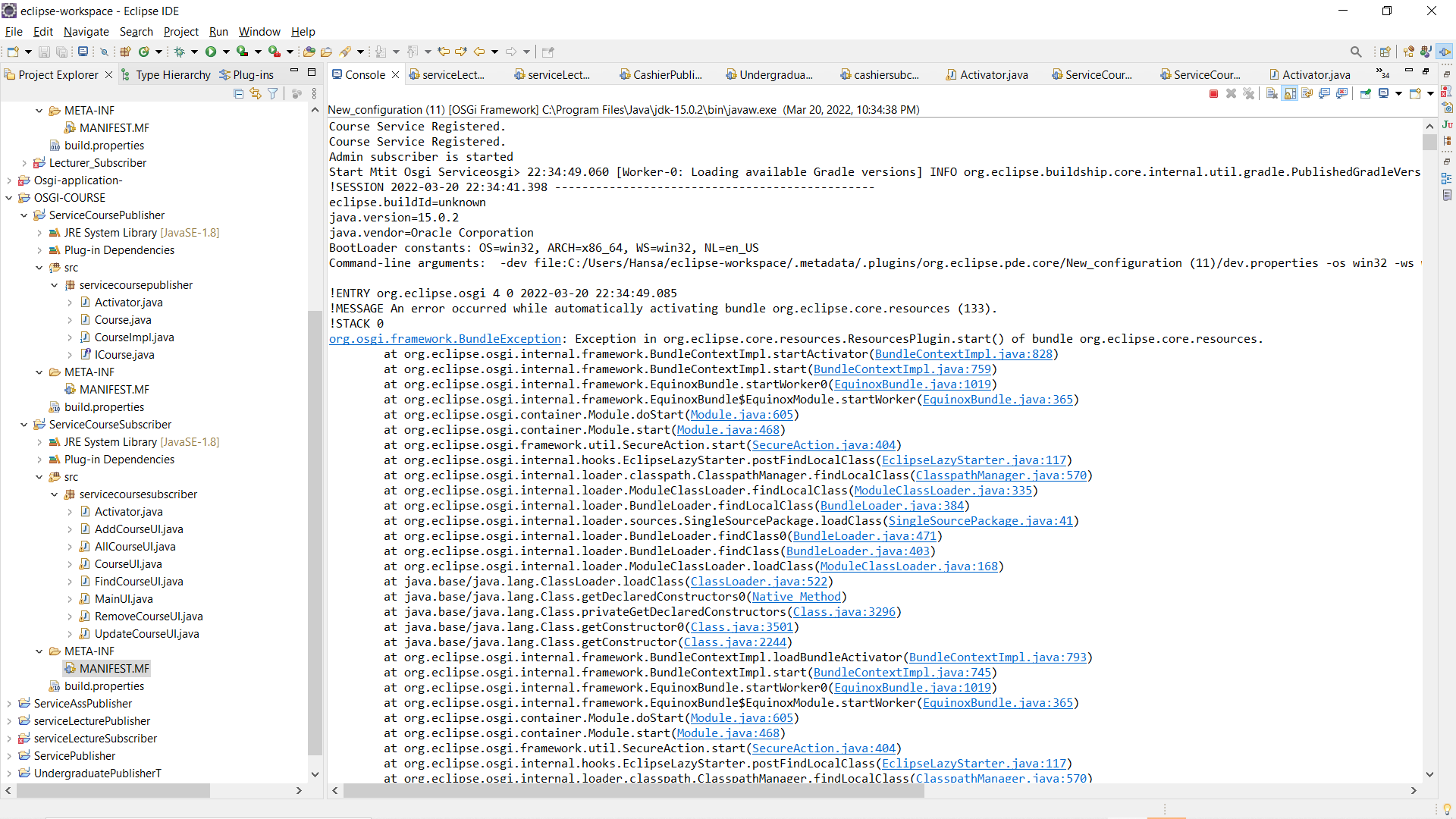
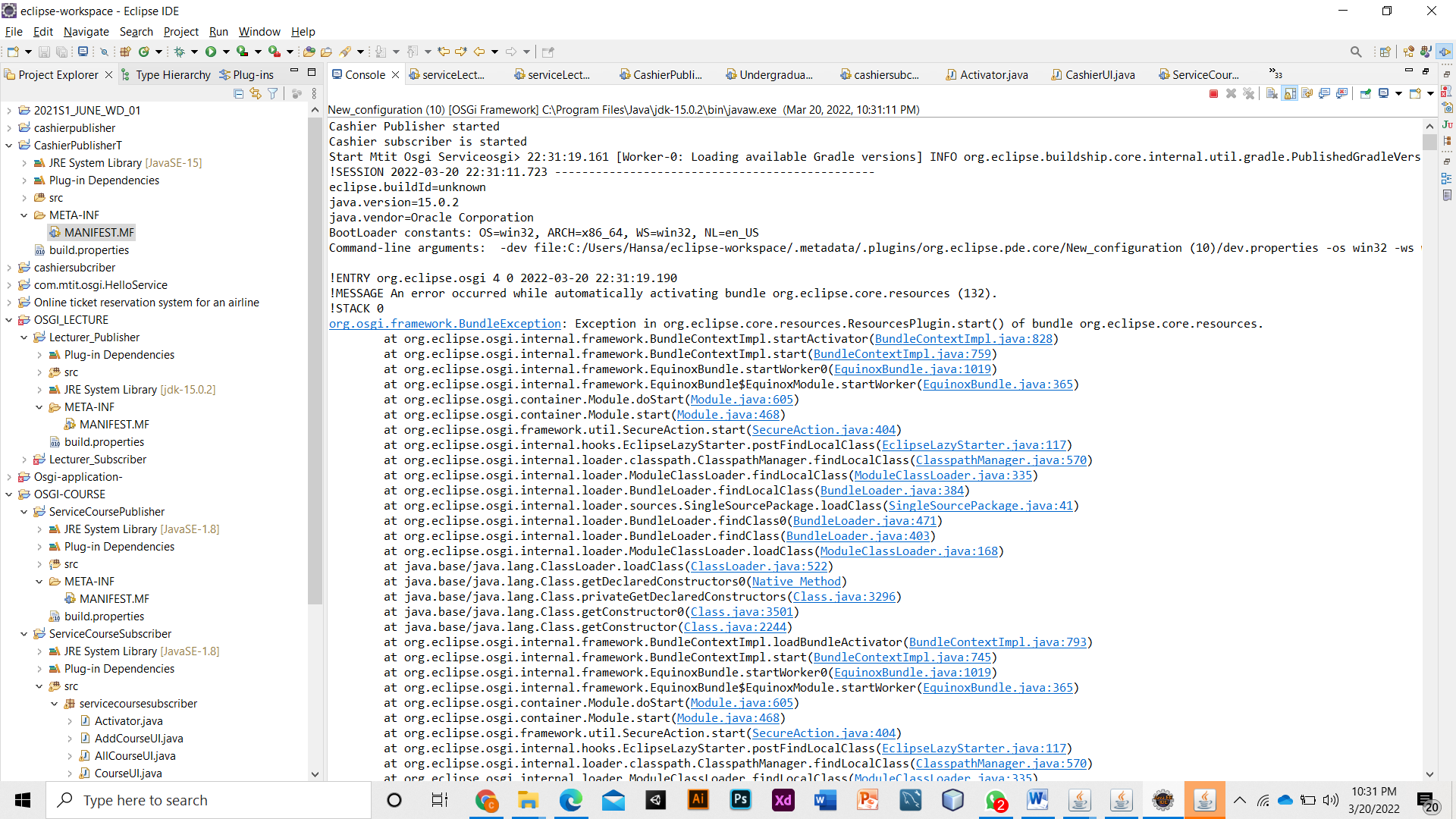
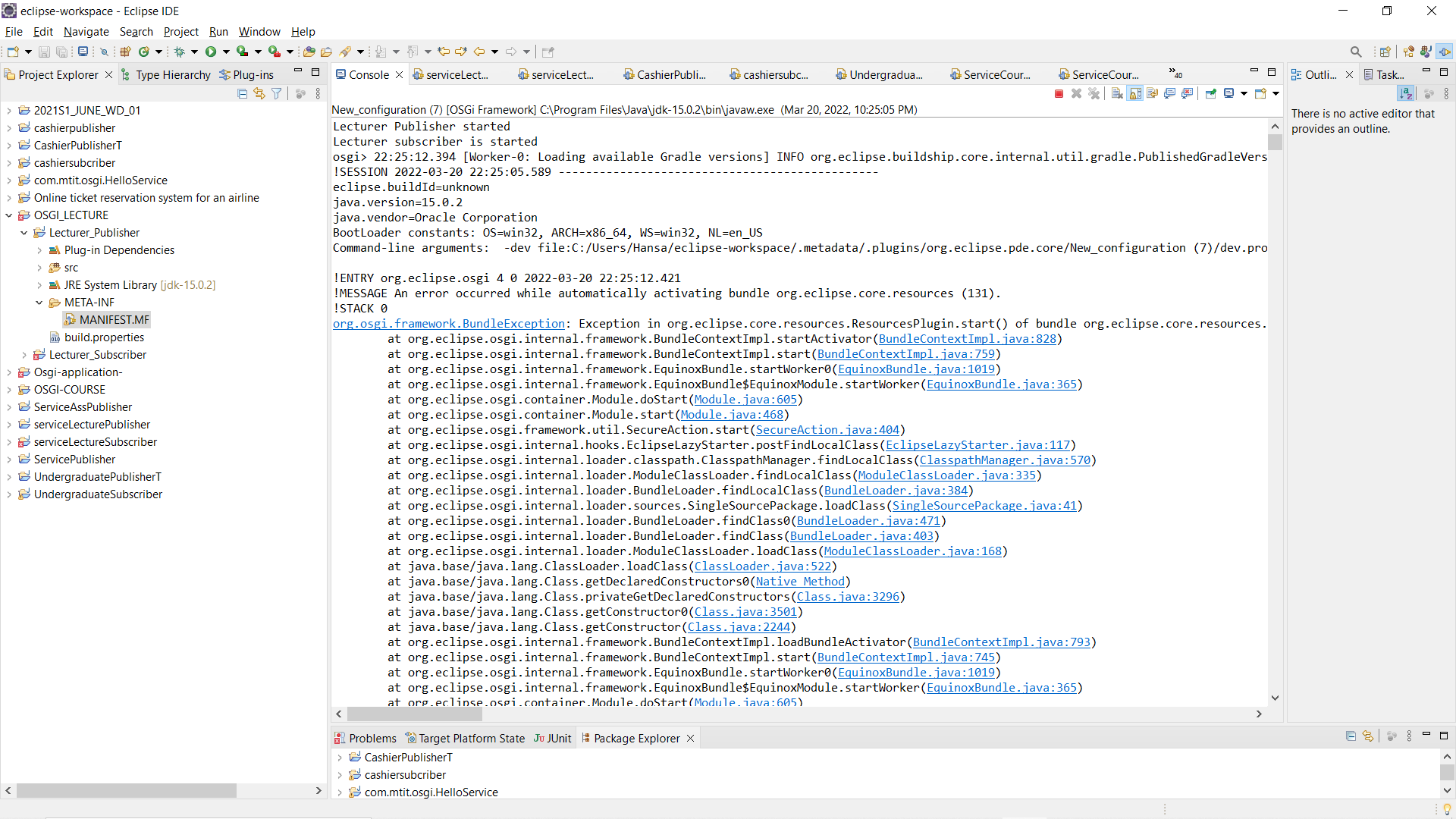
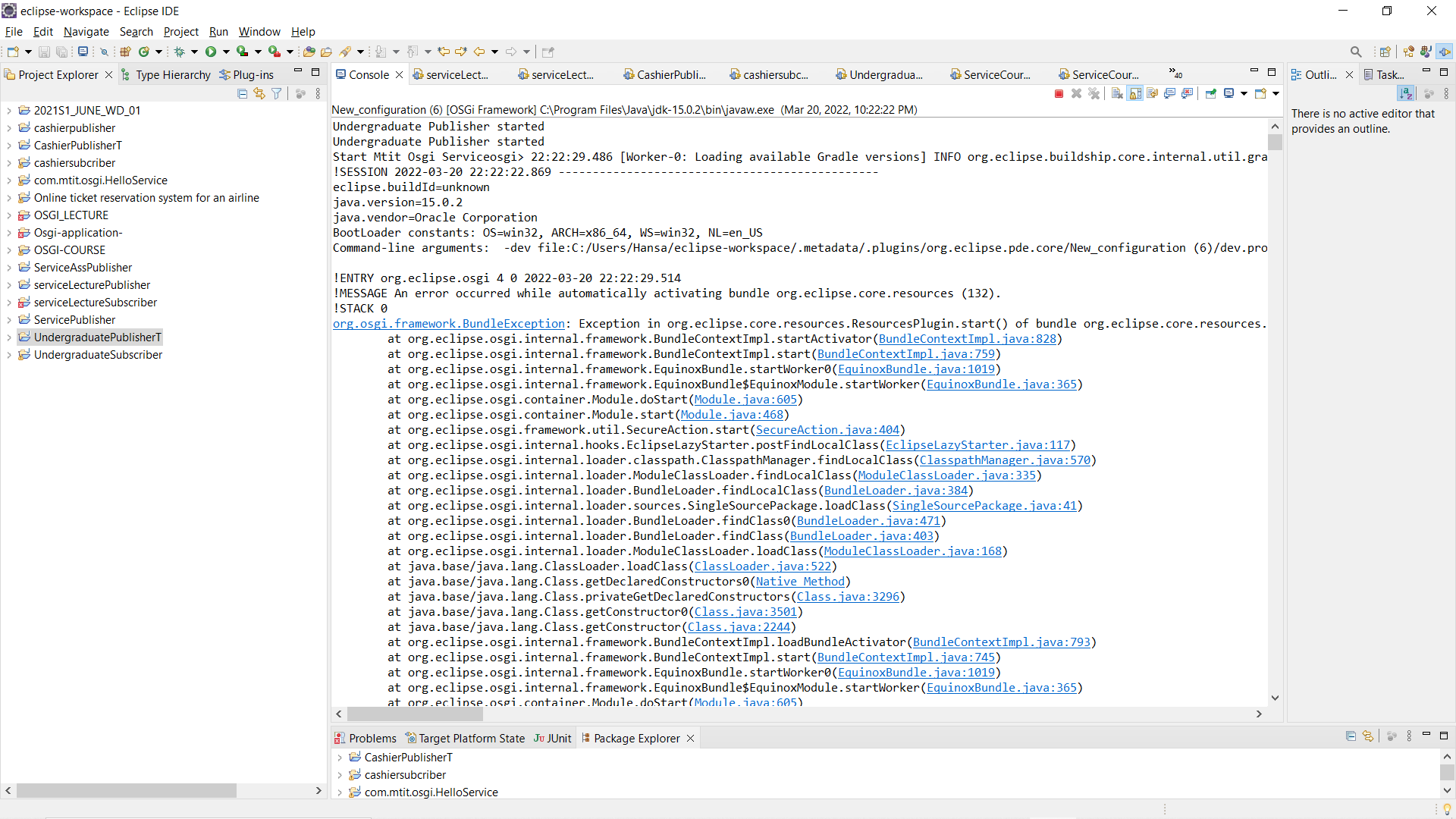
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### Cashier Subscriber

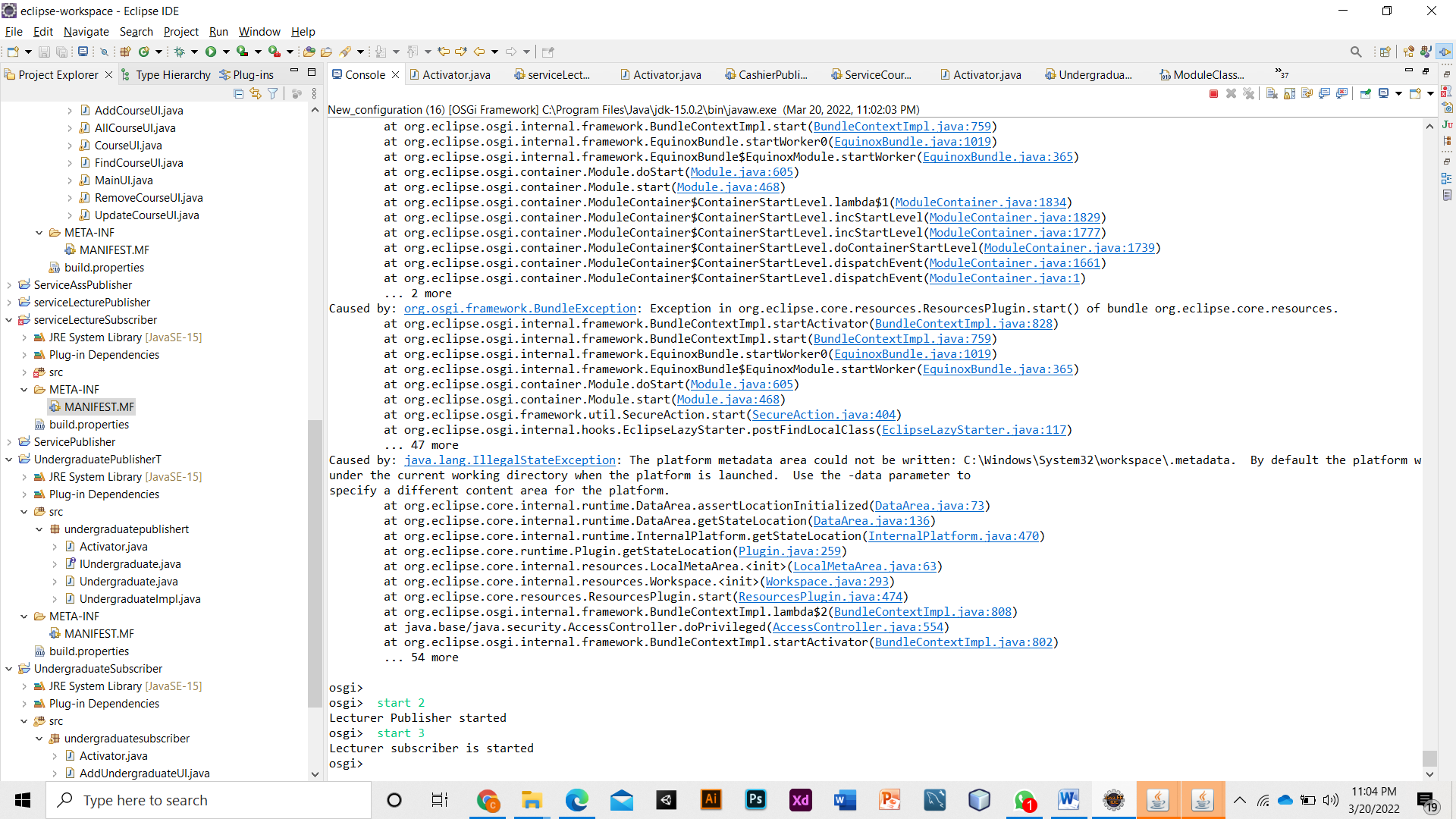
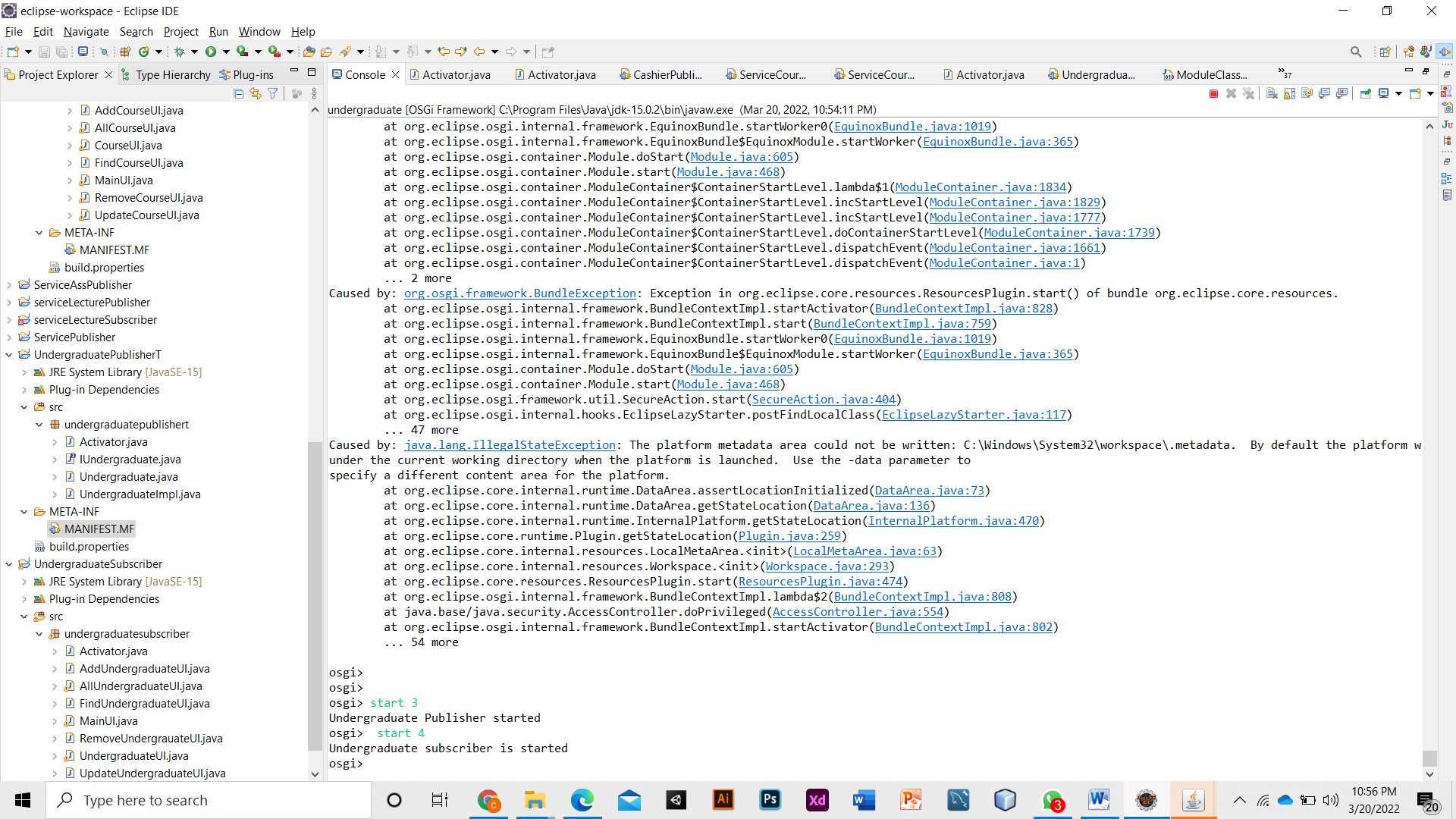
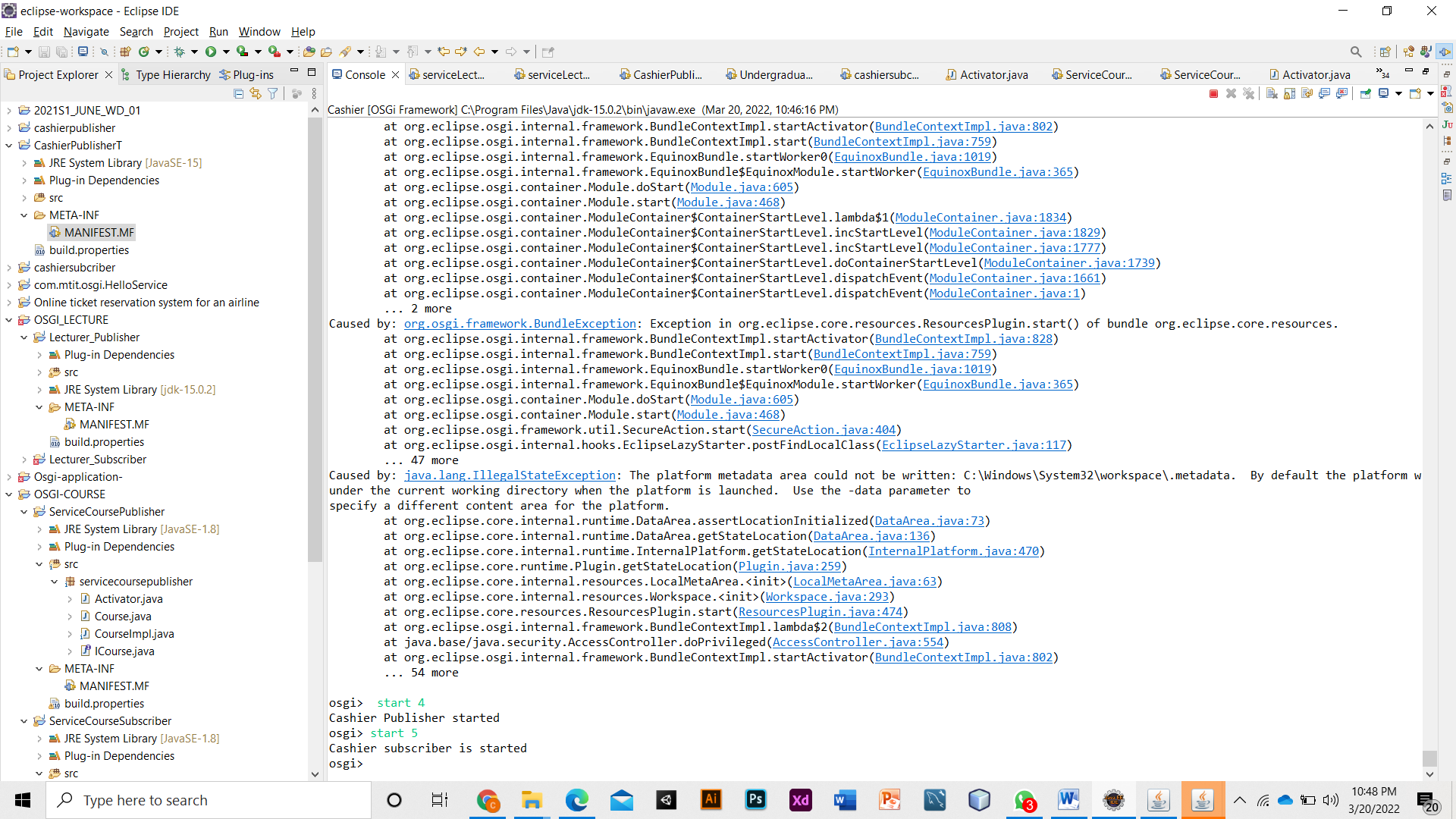
### 

1. All commands of bundle install and run in OSGi framework.
   1. Run project in eclipse.
      * Select publisher and right click -> Run As -> OSGi Framework.
      * After running all publishers then run the subscriber as mentioned above.
      * To see all running plugins their status and ids type “lb” on the console.
      * To stop running plugins type “stop <<plugin id>>”.
      * To start stopped plugins type “start <<plugin id>>”.

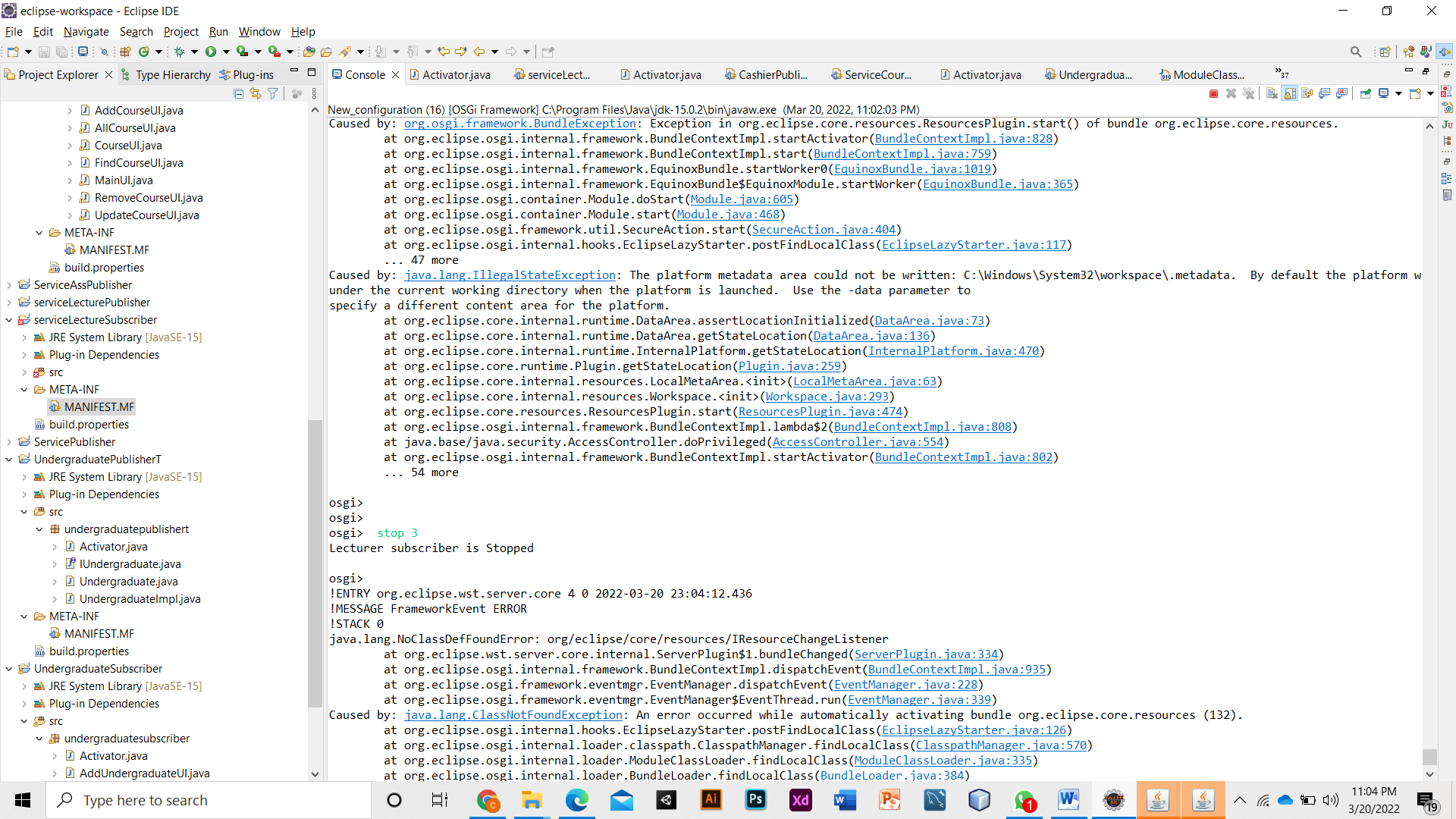
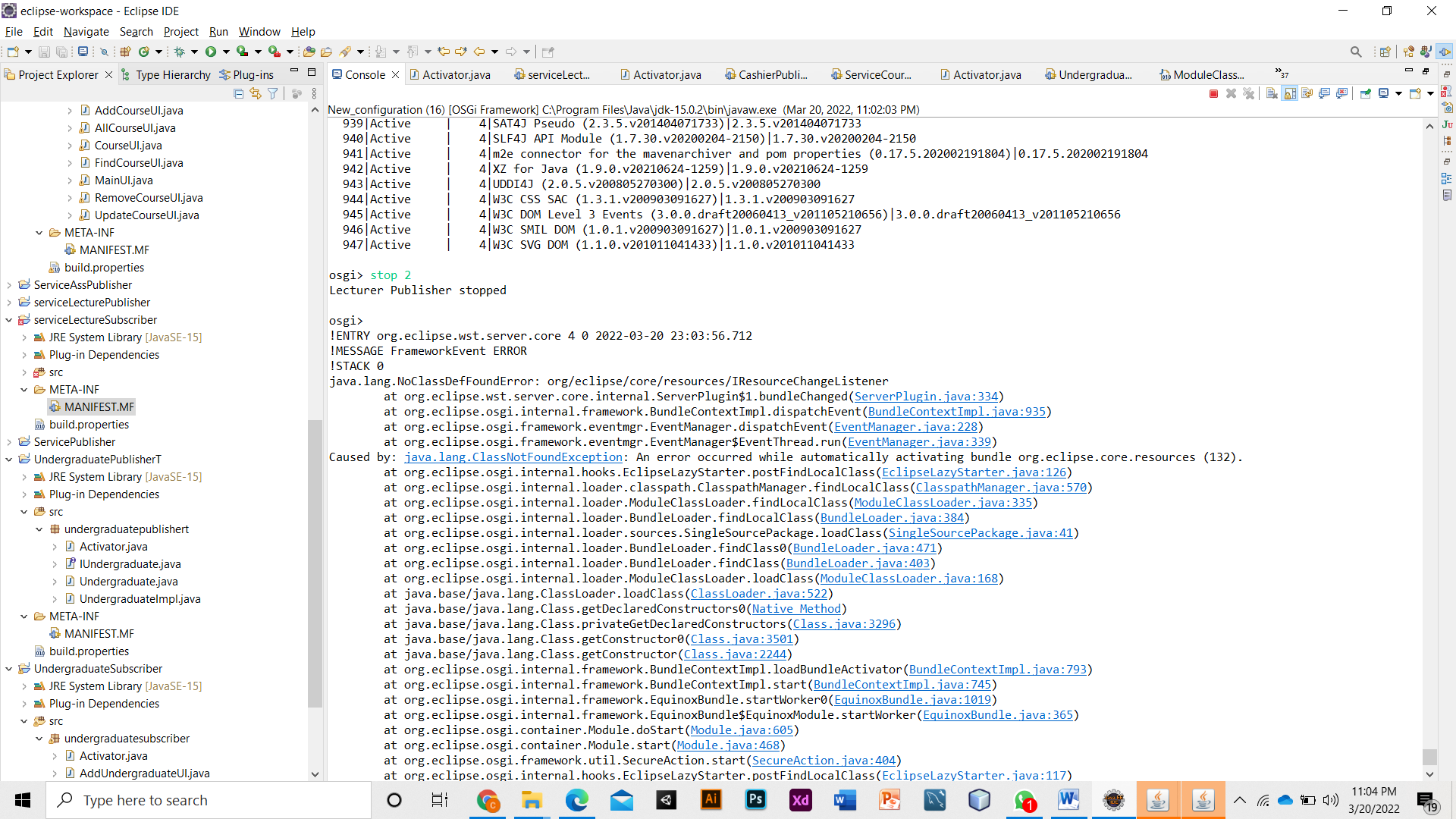
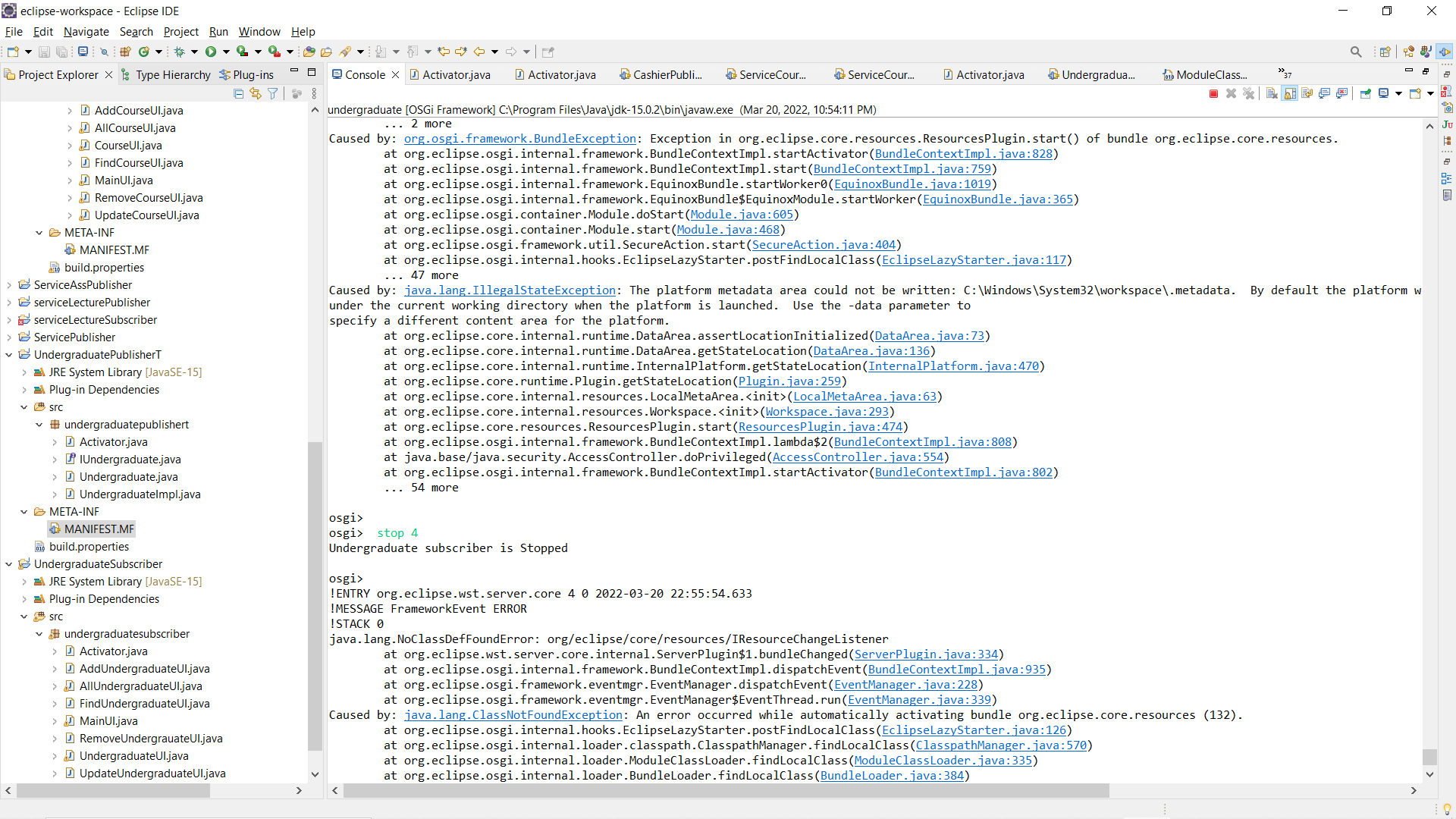
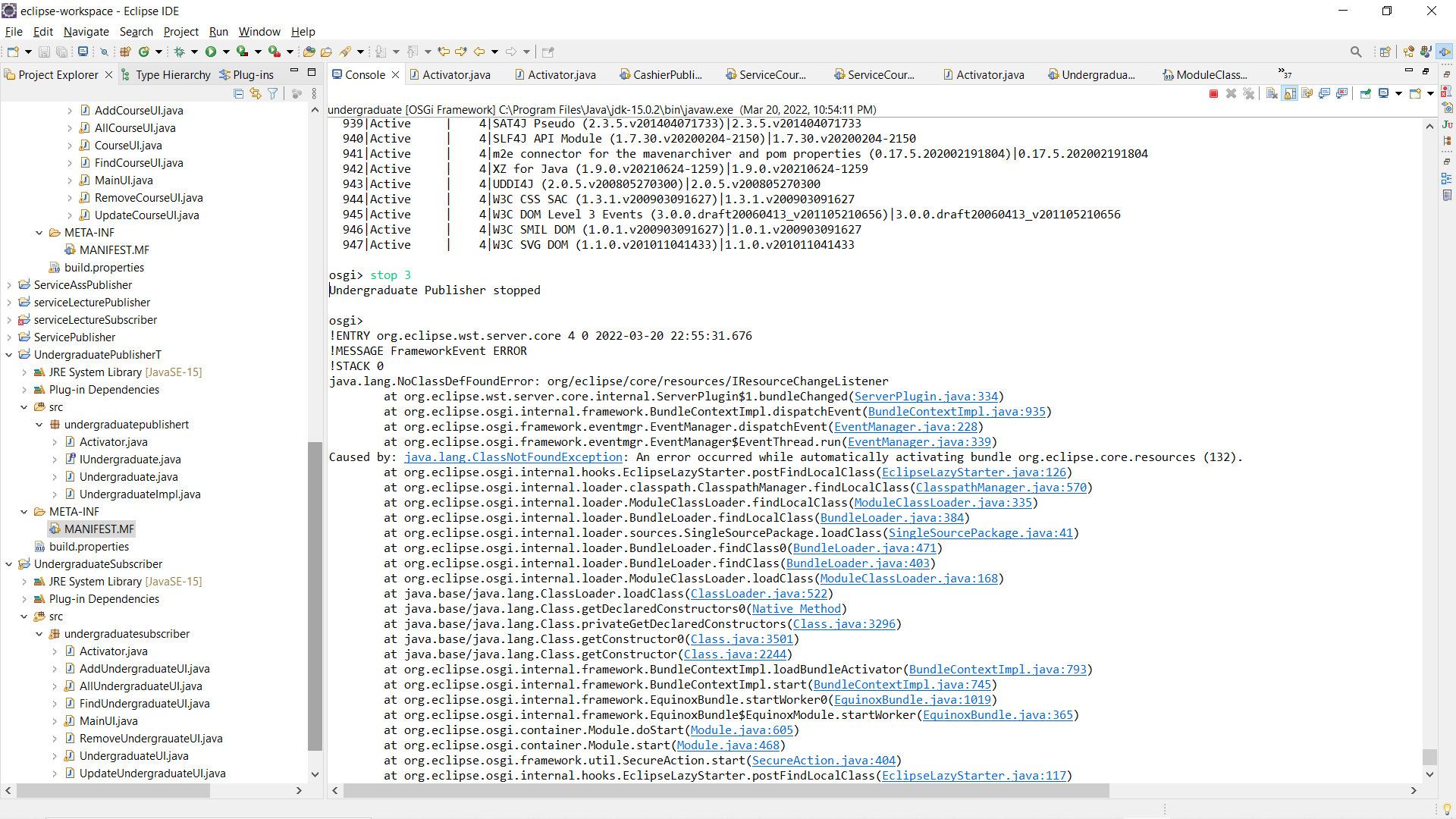
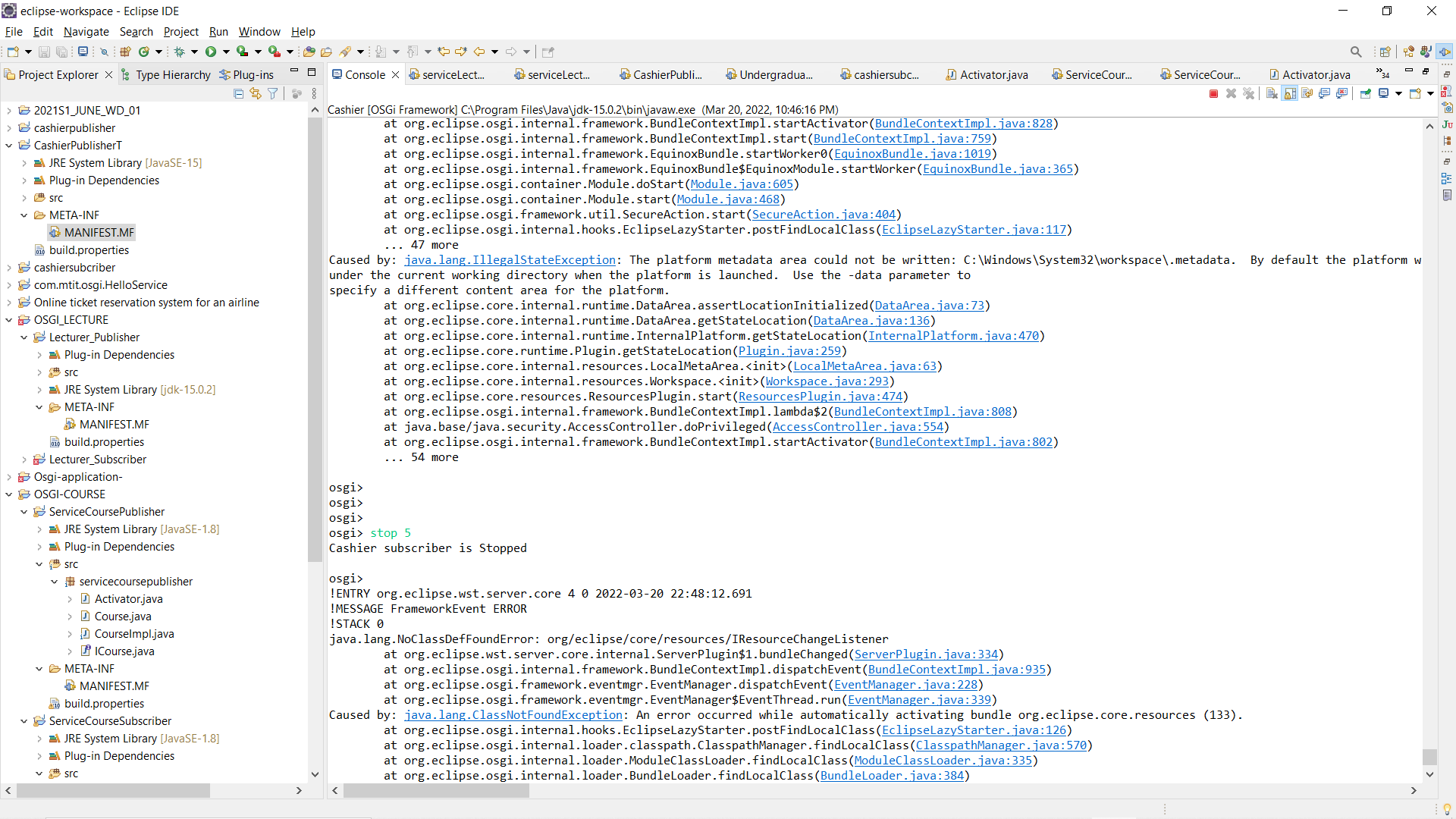
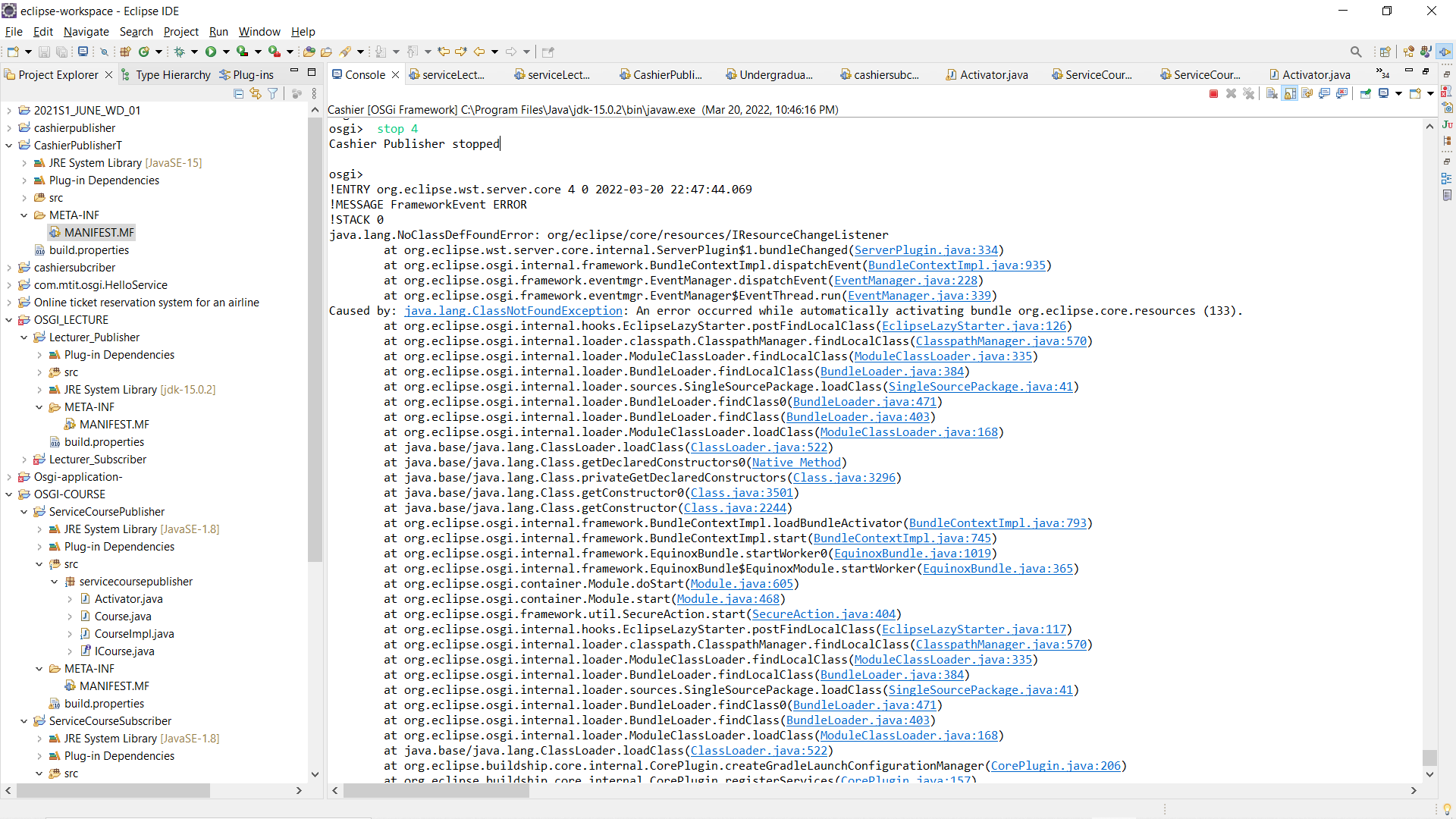
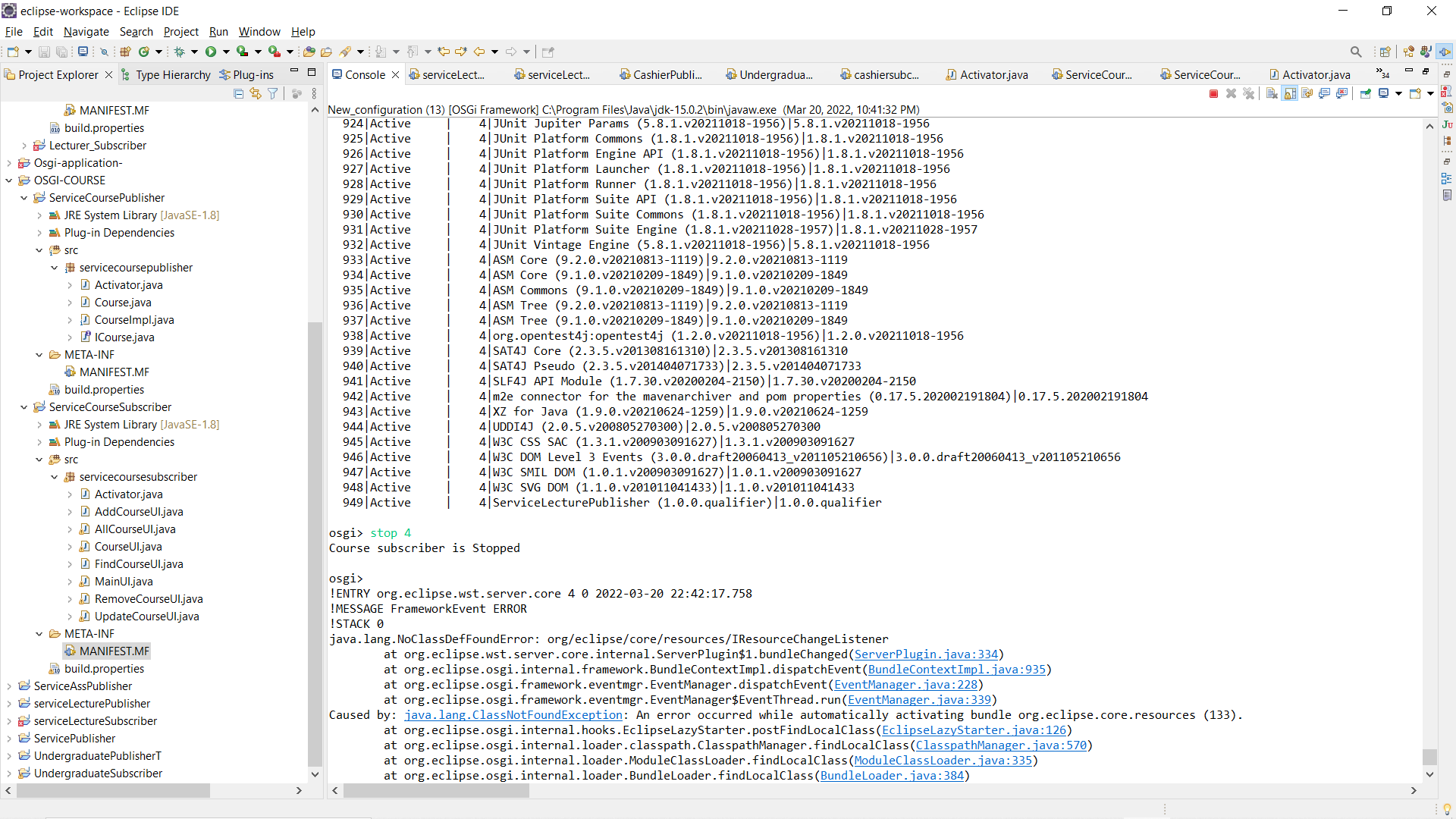
*Figure 1 Started Services.*



*Figure 1 Start Services.*



*Figure 3 Stop Services*



1. Sample screenshots of its behavior & outputs.

## Undergraduate service interfaces

|  |  |
| --- | --- |
|  |  |
| *Undergraduate: Add Undergraduate* | *Undergraduate: Confirm Undergraduate* |
|  |  |
| *Undergraduate: View Undergraduate* | *Undergraduate: Update Undergraduate* |
|  |  |
| *Undergraduate: Find Undergraduate* | *Undergraduate: Delete Undergraduate* |

## Course service interfaces

|  |  |
| --- | --- |
|  |  |
| *Course: Add Course* | *Course: Confirm Add Course* |
|  |  |
| *Course: View Course* | *Course: Update Course* |
| C:\Users\Hansa\Pictures\Screenshots\course find (2).png | Graphical user interface, application, Word  Description automatically generated |
| *Course: : Find Course* | *Course: Delete Course* |

## Lecturer service interfaces

|  |  |
| --- | --- |
|  |  |
| *Lecturer: Add Lecturer* | *Lecturer: Confirm Add Lecturer* |
|  |  |
| *Lecturer: View Lecturer* | *Lecturer: Update Lecturer* |
|  |  |
| *Lecturer: Find Lecturer* | *Lecturer: Delete Lecturer* |

## Cashier service interfaces.

|  |  |
| --- | --- |
|  |  |
| *Cashier: Add Cashier* | *Cashier: Confirm Add Cashier* |
|  |  |
| *Cashier: View Cashier* | *Cashier: Update Cashier* |
|  |  |
| *Cashier: Find Cashier* | *Cashier: Delete Cashier* |