Sri Lanka Institute of Information Technology Sri Lanka

B.Sc. (Hons) in Information Technology

MODERN TOPICS IN INFORMATION TECHNOLOGY

(IT4020)

Assignment Report

Assignment 01

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INTRODUCTION

We have done a Fruit Juice Order System according to OSGi framework. Fruit Juice Service is the producers/services of this system. The consumer/subscriber of the system is Customer.

SYSTEM DIAGRAM

Publisher

Subscriber

FruitJuiceServicePublisher

FruitJuiceServiceSubscriber
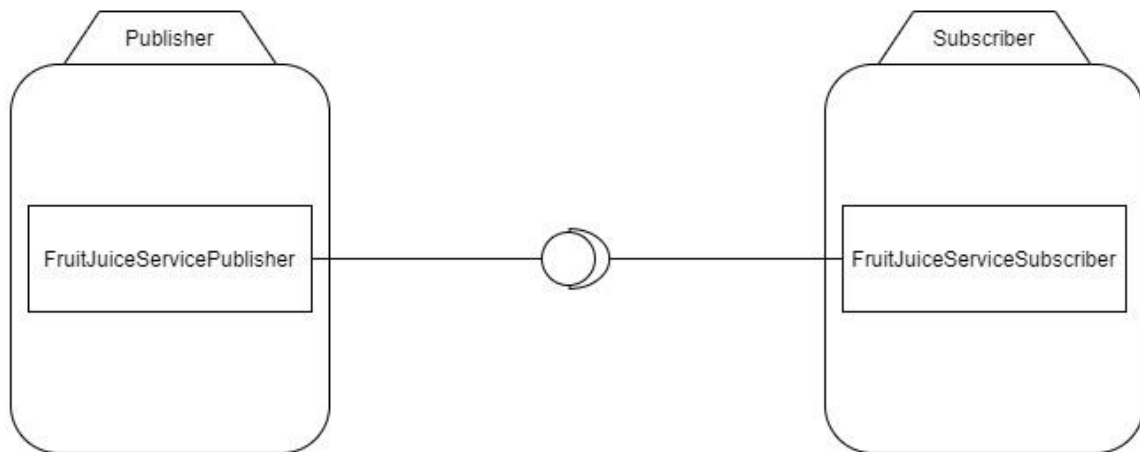
MANIFEST IMPLEMENTATION

Fruit Juice Service (Producer/Service)
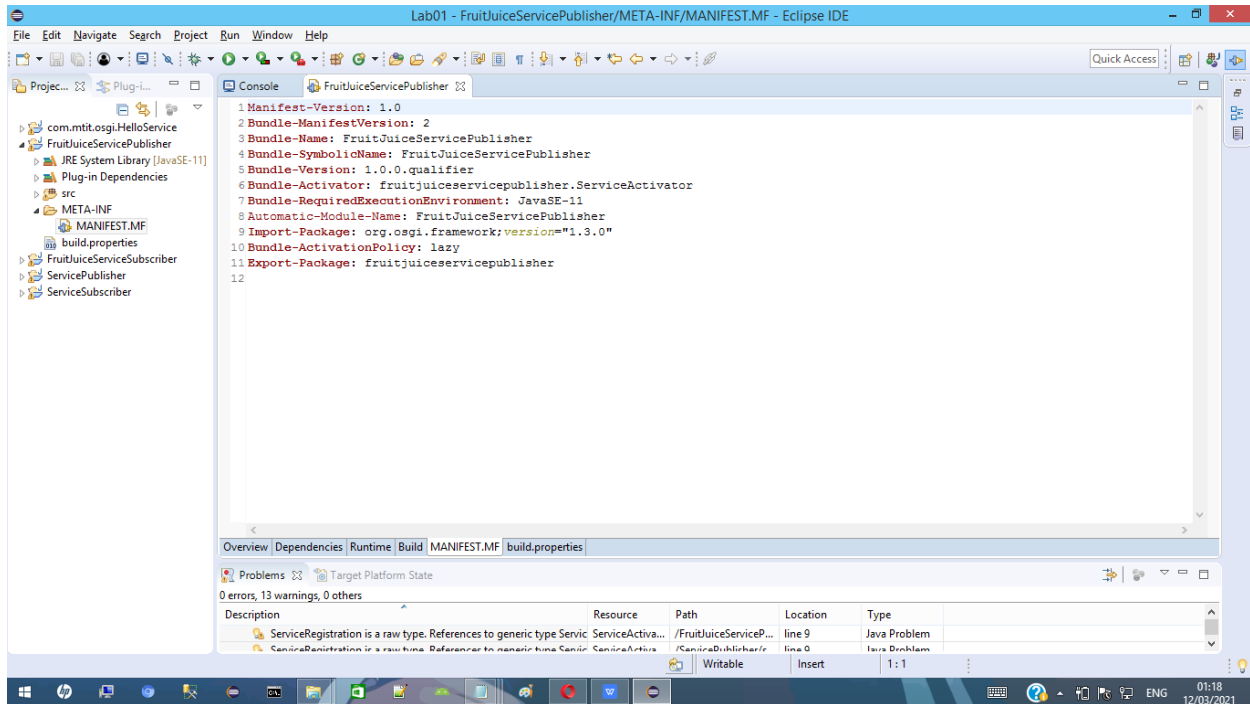
Customer (Consumer/Subscriber)
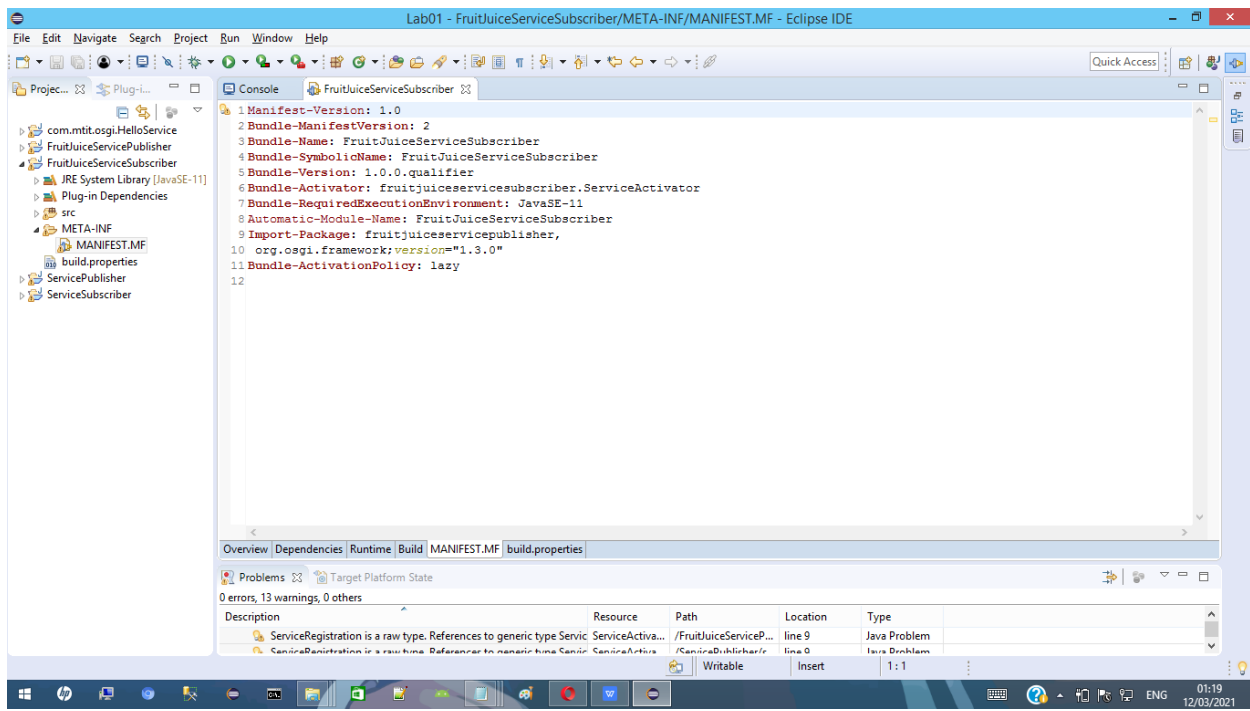
BUNDLES

Fruit Juice Service (Producer/Service)
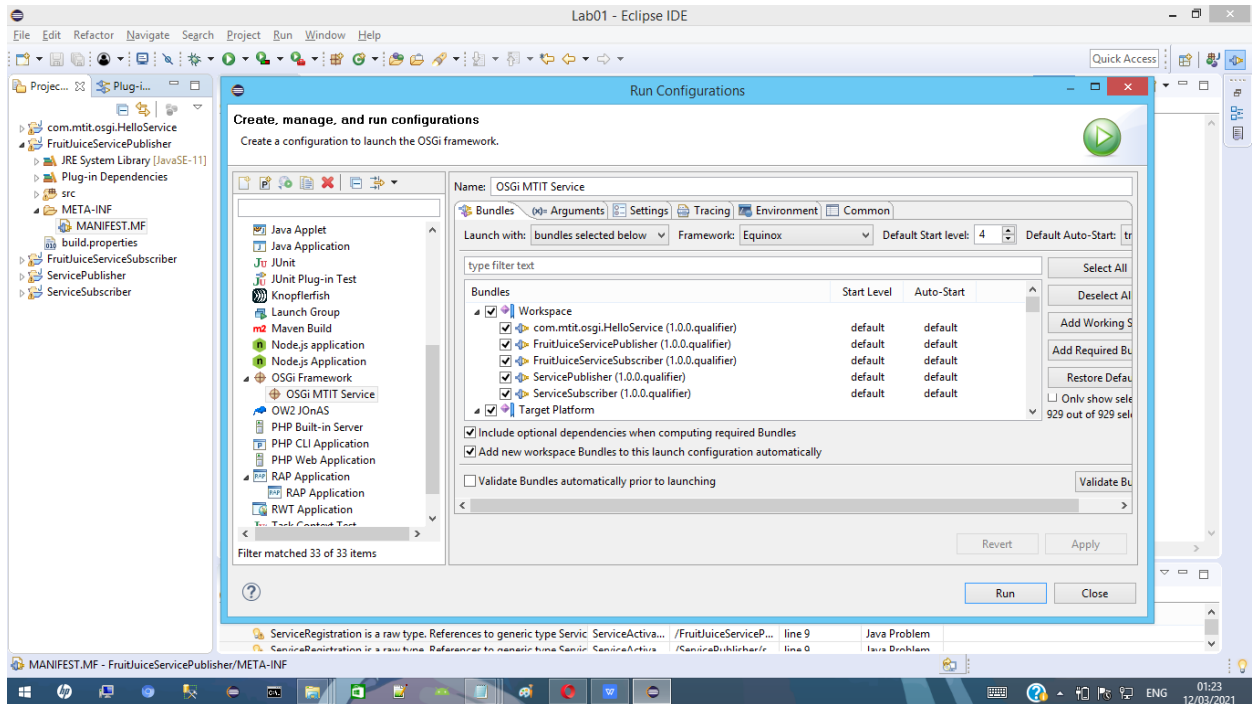
Customer (Consumer/Subscriber)

BEHAVIOR AND OUTPUTS


```
Fruit Juice Service Publisher Start
This is Fruit Juice Reservation Service Subscriber Start Service Subscriber

Do You Want To Order A Fruit Juice ? If Yes, Press y/Y
Answer: y

  --- FRUIT JUICE ORDER SERVICE ---

For Medium Sized Drink  -> Press 1
For Large Sized Drink -> Press 2
For Extra-Large Size Drink  -> Press 3

Enter the Drink Size: 2

Enter the Quantity of Drinks :
8
Total Payable Amount For the Order On Large Sized Drinks is Rs.4000

Do you want to order again ?
Answer:
```



```
osgi> ss
"Framework is launched."

id     State      Bundle
0      ACTIVE     org.eclipse.osgi_3.13.200.v20181130-2106
                  Fragments=659
1      ACTIVE     org.eclipse.equinox.simpleconfigurator_1.3.200.v20181101-1115
2      ACTIVE     FruitJuiceServicePublisher_1.0.0.qualifier
3      ACTIVE     FruitJuiceServiceSubscriber_1.0.0.qualifier
4      ACTIVE     ServicePublisher_1.0.0.qualifier
5      ACTIVE     ServiceSubscriber_1.0.0.qualifier
6      ACTIVE     ch.qos.logback.classic_1.0.7.v20121108-1250
                  Fragments=541
7      ACTIVE     ch.qos.logback.core_1.0.7.v20121108-1250
8      RESOLVED   ch.qos.logback.slf4j_1.0.7.v201505121915
                  Master=919
9      ACTIVE     com.google.gson_2.8.2.v20180104-1110
10     ACTIVE     com.google.guava_21.0.0.v20170206-1425
11     ACTIVE     com.google.javascript_0.0.20160315.v20161124-1903
12     ACTIVE     com.google.protobuf_2.4.0.v201105131100
13     ACTIVE     com.ibm.icu_63.1.0.v20181030-1705
14     ACTIVE     com.jcraft.jsch_0.1.54.v20170116-1932
15     ACTIVE     com.jcraft.jzlib_1.1.1.v201205102305
16     ACTIVE     com.mtit.osgi.HelloService_1.0.0.qualifier
17     ACTIVE     com.sun.el_2.2.0.v201303151357
18     ACTIVE     com.sun.jna_4.5.1.v20180403-1933
```

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Lab01 - Eclipse IDE

File   Edit   Navigate   Search   Project   Run   Window   Help

Quick Access

Projec...   Plug-i...

- com.mtit.osgi.HelloService
- FruitJuiceServicePublisher
  - JRE System Library [JavaSE-11]
  - Plug-in Dependencies
  - src
  - META-INF
    - MANIFEST.MF
    - build.properties
- FruitJuiceServiceSubscriber
- ServicePublisher
- ServiceSubscriber

Console

OSGi MTIT Service [OSGi Framework] C:\Program Files\Java\jdk-11.0.1\bin\javaw.exe (12 Mar 2021, 01:00:57)

```
919      ACTIVE      org.slf4j.api_1.7.2.v20121108-1250
                     Fragments=920, 8
920      RESOLVED    org.slf4j.impl.log4j12_1.7.2.v20131105-2200
                     Master=919
921      ACTIVE      org.sonatype.m2e.mavenarchiver_0.17.2.201606141937-signed-20160830073346
922      ACTIVE      org.tukaani.xz_1.8.0.v20180207-1613
923      ACTIVE      org.uddi4j_2.0.5.v200805270300
924      ACTIVE      org.w3c.css.sac_1.3.1.v200903091627
925      ACTIVE      org.w3c.dom.events_3.0.0.draft20060413_v201105210656
926      ACTIVE      org.w3c.dom.smil_1.0.1.v200903091627
927      ACTIVE      org.w3c.dom.svg_1.1.0.v201011041433
928      ACTIVE      osgi.enterprise_4.2.0.v201108120515
osgi>
osgi> start 2
osgi> stop 2
Fruit Juice Service publisher stop
osgi> stop 3
good bye!!!
osgi> start 3
gogo: BundleException: Exception in fruitjuiceservicesubscriber.ServiceActivator.start() of bundle FruitJuiceServiceSubscriber.
osgi> start 2
Fruit Juice Service Publisher Start
osgi>  start 3
This is Fruit Juice Reservation Service Subscriber Start Service Subscriber

Do You Want To Order A Fruit Juice ? If Yes, Press y/Y
Answer:
```

Problems   Target Platform State

0 errors, 13 warnings, 0 others

Description	Resource	Path	Location	Type
ServiceRegistration is a raw type. References to generic type Servic	ServiceActiva...	/FruitJuiceServiceP...	line 9	Java Problem
ServiceRegistration is a raw type. References to generic type Servic	ServiceActiva...	/ServicePublisher/s	line 9	Java Problem

ENG   01:31   12/03/2021