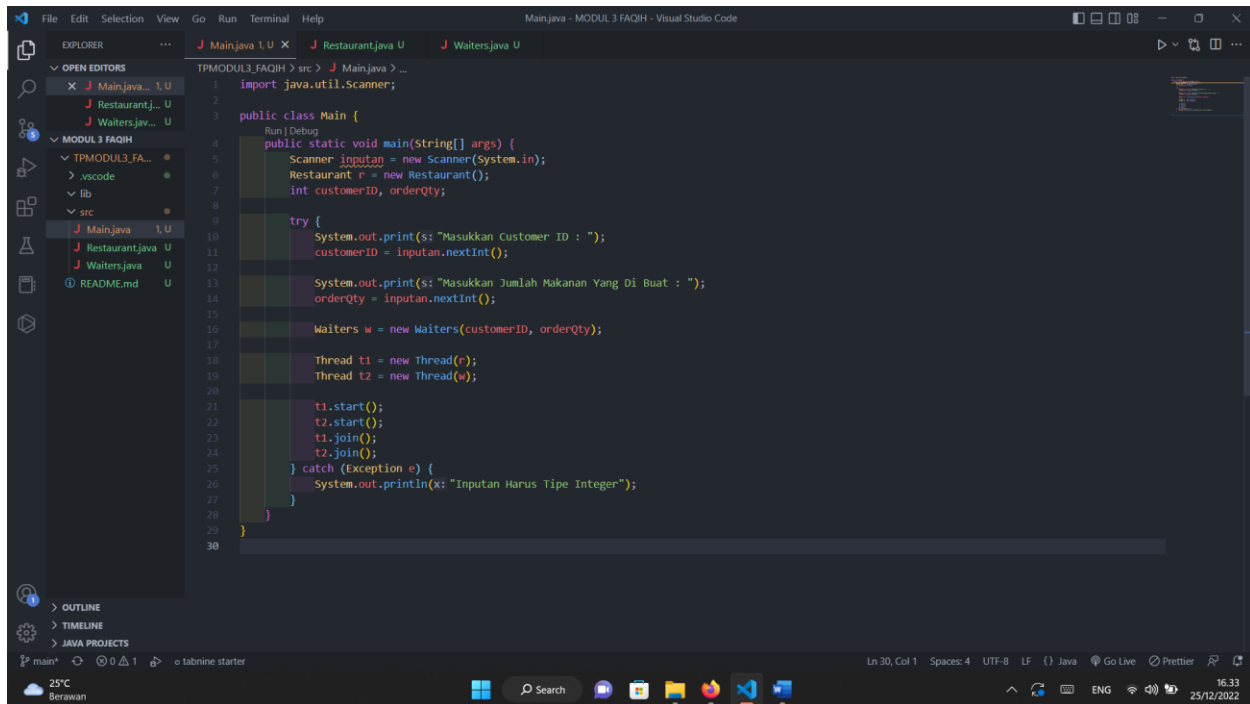
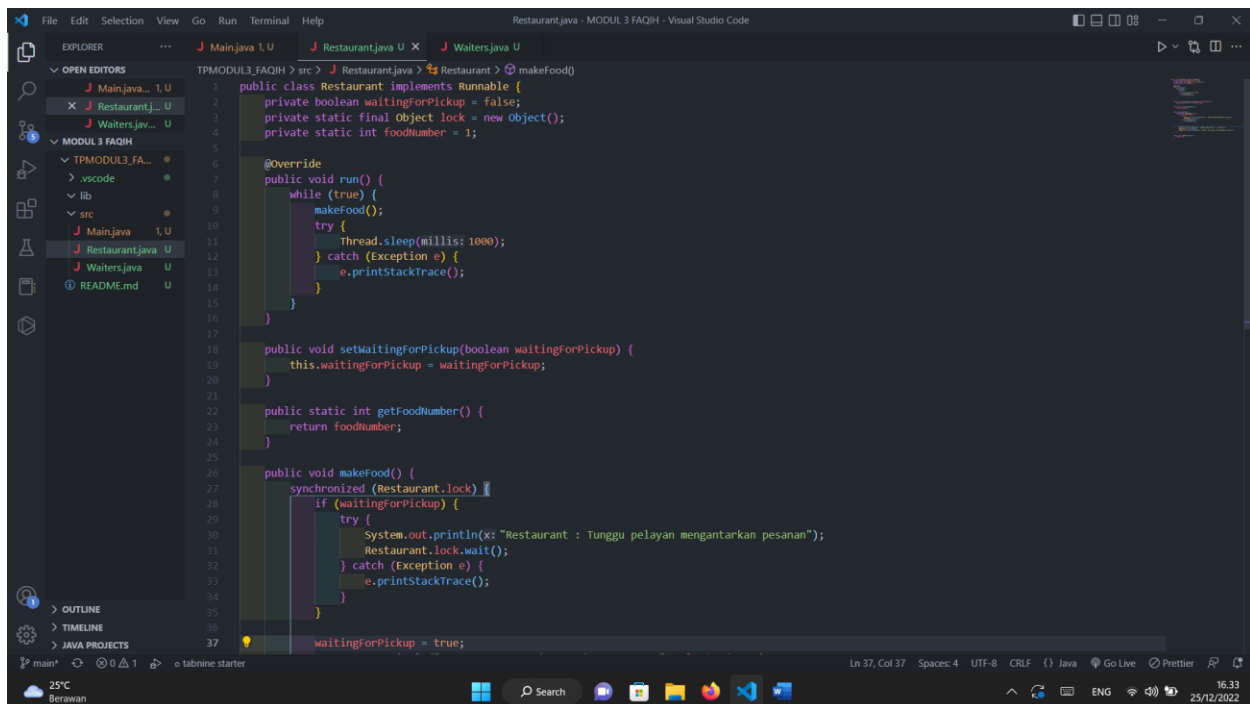


Link Github: <https://github.com/ReyhanFaqihh/OOP-FRQI-FAQIH-1202213345>



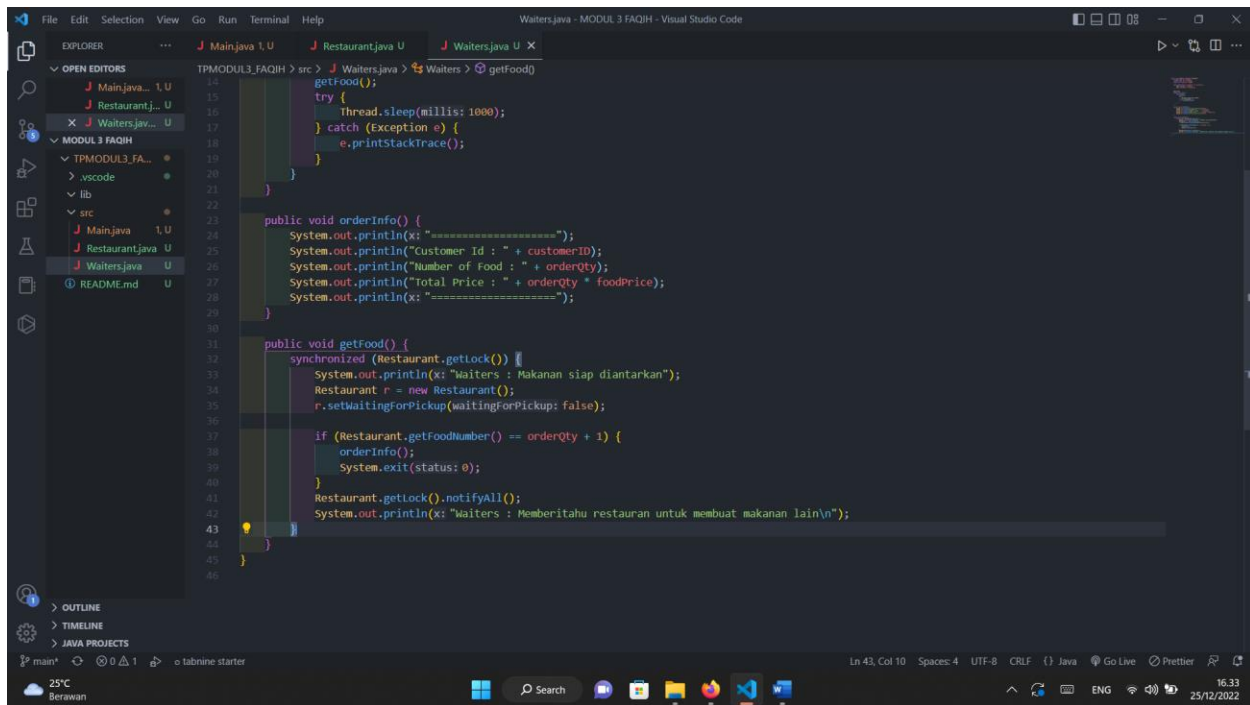
```
1 import java.util.Scanner;
2
3 public class Main {
4     public static void main(String[] args) {
5         Scanner inputan = new Scanner(System.in);
6         Restaurant r = new Restaurant();
7         int customerID, orderQty;
8
9         try {
10             System.out.print(s: "Masukkan Customer ID : ");
11             customerID = inputan.nextInt();
12
13             System.out.print(s: "Masukkan Jumlah Makanan Yang Di Buat : ");
14             orderQty = inputan.nextInt();
15
16             Waiters w = new Waiters(customerID, orderQty);
17
18             Thread t1 = new Thread(r);
19             Thread t2 = new Thread(w);
20
21             t1.start();
22             t2.start();
23             t1.join();
24             t2.join();
25         } catch (Exception e) {
26             System.out.println(x: "Inputan Harus Tipe Integer");
27         }
28     }
29 }
30
```



```
1 public class Restaurant implements Runnable {
2     private boolean waitingForPickup = false;
3     private static final Object lock = new Object();
4     private static int foodNumber = 1;
5
6     @Override
7     public void run() {
8         while (true) {
9             makeFood();
10             try {
11                 Thread.sleep(millis: 1000);
12             } catch (Exception e) {
13                 e.printStackTrace();
14             }
15         }
16     }
17
18     public void setWaitingForPickup(boolean waitingForPickup) {
19         this.waitingForPickup = waitingForPickup;
20     }
21
22     public static int getFoodNumber() {
23         return foodNumber;
24     }
25
26     public void makeFood() {
27         synchronized (Restaurant.lock) {
28             if (waitingForPickup) {
29                 try {
30                     System.out.println(x: "Restaurant : Tunggu pelayan mengantarkan pesanan");
31                     Restaurant.lock.wait();
32                 } catch (Exception e) {
33                     e.printStackTrace();
34                 }
35             }
36         }
37         waitingForPickup = true;
38     }
39 }
```

```
14 }
15 }
16 }
17
18 public void setWaitingForPickup(boolean waitingForPickup) {
19     this.waitingForPickup = waitingForPickup;
20 }
21
22 public static int getFoodNumber() {
23     return foodNumber;
24 }
25
26 public void makeFood() {
27     synchronized (Restaurant.lock) {
28         if (waitingForPickup) {
29             try {
30                 System.out.println(x: "Restaurant : Tunggu pelayan mengantarkan pesanan");
31                 Restaurant.lock.wait();
32             } catch (Exception e) {
33                 e.printStackTrace();
34             }
35         }
36     }
37     waitingForPickup = true;
38     System.out.println("Restaurant : Membuat makanan nomor " + foodNumber++);
39     Restaurant.lock.notifyAll();
40     System.out.println(x: "Restaurant : Memberi tahu pelayan untuk mengambil pesanan\n");
41 }
42
43 public static Object getlock() {
44     return lock;
45 }
46
47 }
48
49 }
```

```
1 public class Waiters implements Runnable {
2     private final int orderQty;
3     private final int customerID;
4     static int foodPrice = 15000;
5
6     public Waiters(int customerID, int orderQty) {
7         this.orderQty = orderQty;
8         this.customerID = customerID;
9     }
10
11     @Override
12     public void run() {
13         while (true) {
14             getFood();
15             try {
16                 Thread.sleep(millis: 1000);
17             } catch (Exception e) {
18                 e.printStackTrace();
19             }
20         }
21     }
22
23     public void orderInfo() {
24         System.out.println(x: "=====");
25         System.out.println("Customer Id : " + customerID);
26         System.out.println("Number of Food : " + orderQty);
27         System.out.println("Total Price : " + orderQty * foodPrice);
28         System.out.println(x: "=====");
29     }
30
31     public void getFood() {
32         synchronized (Restaurant.getlock()) {
33             System.out.println(x: "Waiters : Makanan siap diantarkan");
34             Restaurant r = new Restaurant();
35             r.setWaitingForPickup(waitingForPickup: false);
36
37             if (Restaurant.getFoodNumber() == orderQty + 1) {
```

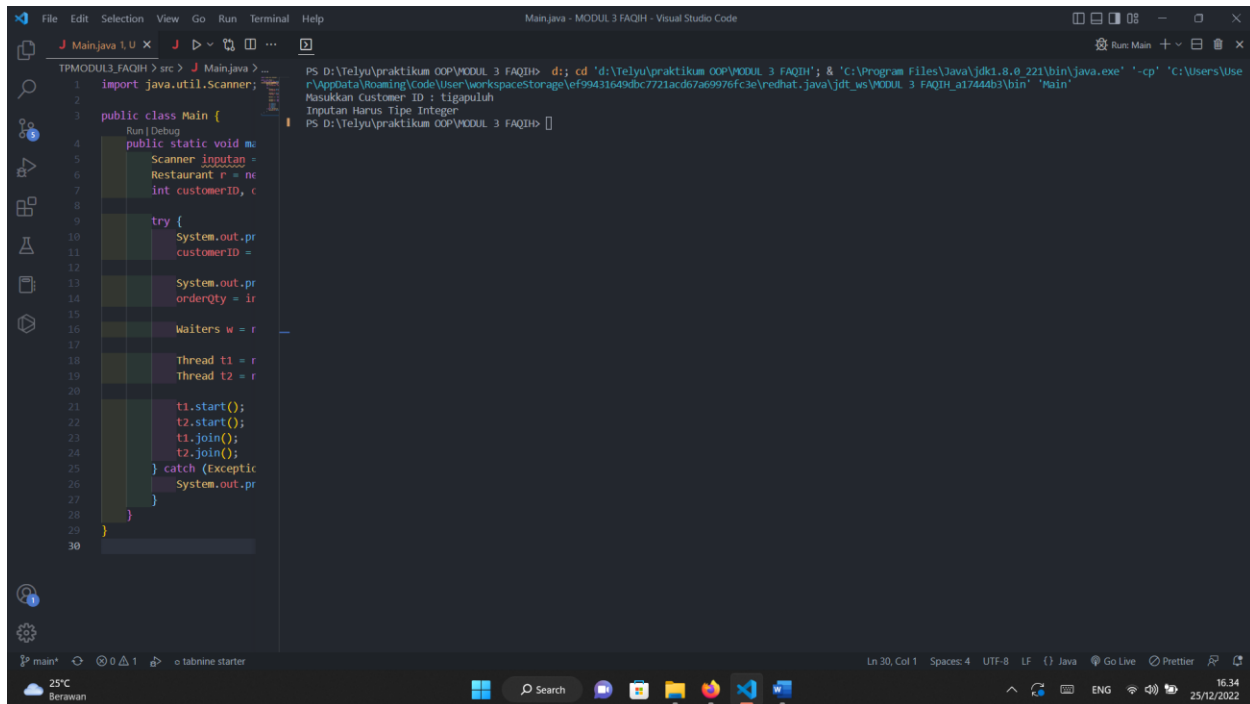


```
Walters.java - MODUL 3 FAQIH - Visual Studio Code

EXPLORER
  MAIN
  MODUL3_FAQIH
    .vscode
    lib
    src
      Main.java
      Restaurant.java
      Walters.java
    README.md

OPEN EDITORS
  Main.java
  Restaurant.java
  Walters.java

Walters.java
  14 getFood();
  15 try {
  16     Thread.sleep(millis: 1000);
  17 } catch (Exception e) {
  18     e.printStackTrace();
  19 }
  20 }
  21
  22 public void orderInfo() {
  23     System.out.println(x: "=====");
  24     System.out.println("Customer Id : " + customerID);
  25     System.out.println("Number of Food : " + orderQty);
  26     System.out.println("Total Price : " + orderQty * foodPrice);
  27     System.out.println(x: "=====");
  28 }
  29
  30 public void getFood() {
  31     synchronized (Restaurant.getlock()) {
  32         System.out.println(x: "Waiters : Makanan siap diantarkan");
  33         Restaurant r = new Restaurant();
  34         r.setWaitingForPickup(waitingForPickup: false);
  35
  36         if (Restaurant.getfoodNumber() == orderQty + 1) {
  37             orderInfo();
  38             System.exit(status: 0);
  39         }
  40         Restaurant.getlock().notifyAll();
  41         System.out.println(x: "Waiters : Memberitahu restoran untuk membuat makanan lain\n");
  42     }
  43 }
  44
  45 }
  46
```



```
Main.java - MODUL 3 FAQIH - Visual Studio Code

EXPLORER
  MAIN
  MODUL3_FAQIH
    .vscode
    lib
    src
      Main.java
      Restaurant.java
      Walters.java
    README.md

OPEN EDITORS
  Main.java
  Restaurant.java
  Walters.java

Main.java
  1 import java.util.Scanner;
  2
  3 public class Main {
  4     public static void main() {
  5         Scanner inputan = new Scanner(System.in);
  6         int customerID = inputan.nextInt();
  7         int orderQty = inputan.nextInt();
  8
  9         Restaurant r = new Restaurant();
  10         Waiters w = new Waiters(r);
  11
  12         Thread t1 = new Thread(w);
  13         Thread t2 = new Thread(w);
  14
  15         t1.start();
  16         t2.start();
  17         t1.join();
  18         t2.join();
  19     } catch (Exception e) {
  20         System.out.println(e.getMessage());
  21     }
  22 }
  23
  24 }
  25
  26 }
  27
  28 }
  29
  30
```

```
File Edit Selection View Go Run Terminal Help
Main.java - MODUL 3 FAQIH - Visual Studio Code

Main.java t.u x
TPMODUL3.FAQIH > src > J Main.java >
1 import java.util.Scanner;
2
3 public class Main {
4     public static void main() {
5         Scanner inputan = new Scanner(System.in);
6         Restaurant r = new Restaurant();
7         int customerID, c;
8
9         try {
10            System.out.println("Masukkan Customer ID : ");
11            customerID = inputan.nextInt();
12            System.out.println("Masukkan Jumlah Makanan Yang Di Buat : ");
13            orderQty = inputan.nextInt();
14            Waiters w = new Waiters();
15
16            Thread t1 = new Thread(r);
17            Thread t2 = new Thread(w);
18
19            t1.start();
20            t2.start();
21            t1.join();
22            t2.join();
23        } catch (Exception e) {
24            System.out.println(e.getMessage());
25        }
26    }
27 }
28
29
30
```

```
PS D:\Telyu\praktikum OOP\MODUL 3 FAQIH> d; cd 'd:\Telyu\praktikum OOP\MODUL 3 FAQIH'; & 'C:\Program Files\Java\jdk1.8.0_221\bin\java.exe' '-cp' 'C:\Users\User\AppData\Roaming\Code\User\workspaceStorage\ef99431649dbc7721acd67a69976fc3e\redhat.java\jdt_ws\MODUL 3 FAQIH_a17444b3\bin' 'Main'
Masukkan Customer ID : tigapuluh
Inputan Harus Tipe Integer
PS D:\Telyu\praktikum OOP\MODUL 3 FAQIH> d; cd 'd:\Telyu\praktikum OOP\MODUL 3 FAQIH'; & 'C:\Program Files\Java\jdk1.8.0_221\bin\java.exe' '-cp' 'C:\Users\User\AppData\Roaming\Code\User\workspaceStorage\ef99431649dbc7721acd67a69976fc3e\redhat.java\jdt_ws\MODUL 3 FAQIH_a17444b3\bin' 'Main'
Masukkan Customer ID : 303
Masukkan Jumlah Makanan Yang Di Buat : 2
Restaurant : Membuat makanan nomor 1
Restaurant : Memberi tahu pelayan untuk mengambil pesanan
Waiters : Makanan siap diantarkan
Waiters : Memberitahu restoran untuk membuat makanan lain
Waiters : Makanan siap diantarkan
Waiters : Memberitahu restoran untuk membuat makanan lain
Restaurant : Tunggu pelayan mengantarkan pesanan
Waiters : Makanan siap diantarkan
Waiters : Memberitahu restoran untuk membuat makanan lain
Restaurant : Membuat makanan nomor 2
Restaurant : Memberi tahu pelayan untuk mengambil pesanan
Restaurant : Tunggu pelayan mengantarkan pesanan
Waiters : Makanan siap diantarkan
=====
Customer Id : 303
Number of Food : 2
Total Price : 30000
=====
PS D:\Telyu\praktikum OOP\MODUL 3 FAQIH>
```

main* 25°C Berauan

Ln 30, Col 1 Spaces: 4 UTF-8 LF {} Java Go Live Prettier 16:34 25/12/2022