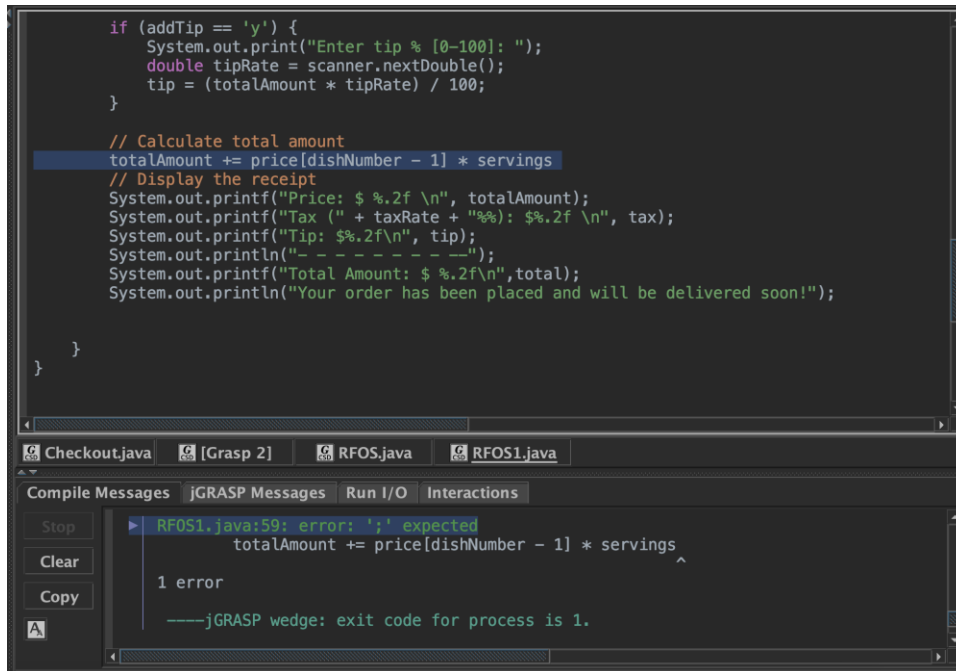


ERRORS



```
if (addTip == 'y') {
    System.out.print("Enter tip % [0-100]: ");
    double tipRate = scanner.nextDouble();
    tip = (totalAmount * tipRate) / 100;
}

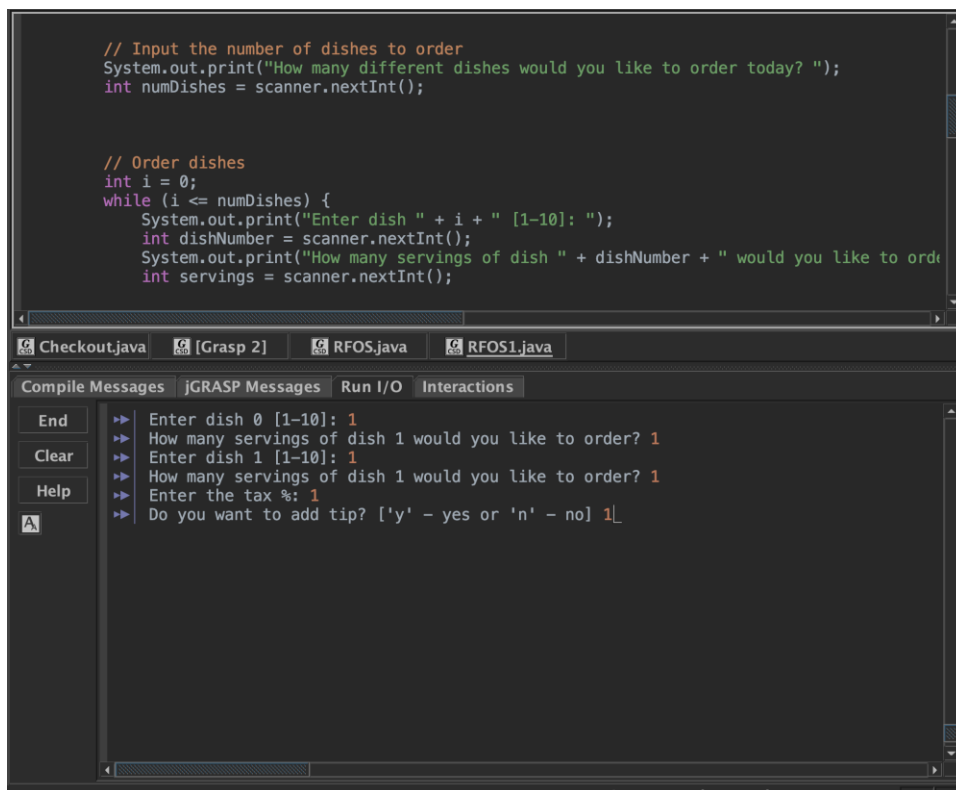
// Calculate total amount
totalAmount += price[dishNumber - 1] * servings
// Display the receipt
System.out.printf("Price: $ %.2f \n", totalAmount);
System.out.printf("Tax (" + taxRate + "%): %.2f \n", tax);
System.out.printf("Tip: %.2f\n", tip);
System.out.println("- - - - -");
System.out.printf("Total Amount: $ %.2f\n", total);
System.out.println("Your order has been placed and will be delivered soon!");
}
}
```

Compile Messages | jGRASP Messages | Run I/O | Interactions

Stop
Clear
Copy

RFOS1.java:59: error: ';' expected
totalAmount += price[dishNumber - 1] * servings
1 error
-----jGRASP wedge: exit code for process is 1.

Forgot a semicolon.



```
// Input the number of dishes to order
System.out.print("How many different dishes would you like to order today? ");
int numDishes = scanner.nextInt();

// Order dishes
int i = 0;
while (i <= numDishes) {
    System.out.print("Enter dish " + i + " [1-10]: ");
    int dishNumber = scanner.nextInt();
    System.out.print("How many servings of dish " + dishNumber + " would you like to order? ");
    int servings = scanner.nextInt();
    i++;
}
```

Compile Messages | jGRASP Messages | Run I/O | Interactions

End
Clear
Help

Enter dish 0 [1-10]: 1
How many servings of dish 1 would you like to order? 1
Enter dish 1 [1-10]: 1
How many servings of dish 1 would you like to order? 1
Enter the tax %: 1
Do you want to add tip? ['y' - yes or 'n' - no] 1

Wrong variable value for 1. Printing 1 extra dish than needed.

```
};
double[] prices = {10.69, 14.25, 3.59, 2.45, 7.24, 15.59, 11.27, 10.35, 9.45, 4.99};

// Display the menu
System.out.println("Mr. K's Indian Food Menu");
System.out.printf("Item %20s %20s", Price, (in dollars));
for (int i = 0; i < menuItems.length; i++) {
    int length = 20 - menuItems[i].length();
    if( i == 9){
        System.out.printf((i + 1) + "    %s    %" + length + ".2f\n", menuItems[i], pr
        break;
    }

    System.out.printf((i + 1) + "    %s    %" + length + ".2f\n", menuItems[i], pr
}

}

Checkout.java  [Grasp 2]  RFOS.java  RFOS1.java
Compile Messages  jGRASP Messages  Run I/O  Interactions
Stop
Clear
Copy
A
----jGRASP: operation complete.
----jGRASP exec: javac -g RFOS1.java
----jGRASP: operation complete.
----jGRASP exec: javac -g RFOS1.java
RFOS1.java:18: error: -> expected
    System.out.printf("Item %20s %20s", Price, (in dollars));
                                   ^
1 error
----jGRASP wedge: exit code for process is 1.
----jGRASP: operation complete.
```

Did not put the placeholder values nor did I include \n to make a new line.

```
----jGRASP exec: javac -g RFOS1.java
RFOS1.java:20: error: bad operand types for binary operator '-'
    System.out.printf((i + 1) + "    %s    %" + 20-menuItems[i].lengt
                                   ^
    first type: String
    second type: int
1 error
----jGRASP wedge: exit code for process is 1.
----jGRASP: operation complete.
----jGRASP exec: javac -g RFOS1.java
RFOS1.java:20: error: bad operand types for binary operator '-'
    System.out.printf((i + 1) + "    %s    %" + 20 - menuItems[i].len
                                   ^
```

Can't subtract two strings. Had to make a separate variable outside of the System.out.println and then include it.

The screenshot shows an IDE with a Java file named `RFOS.java`. The code snippet is as follows:

```
// Calculate tax
double tax = (totalAmount * taxRate) / 100;

// Input tip
System.out.print("Do you want to add tip? ['y' - yes or 'n' - no] ");
char addTip = scanner.nextchar();

if (addTip == 'y') {
```

The compilation messages pane shows the following error:

```
RFOS.java:72: error: cannot find symbol
    char addTip = scanner.nextchar();
                           ^
    symbol:   method nextchar()
    location: variable scanner of type Scanner
1 error
```

Not a valid line; Had to replace with `char addTip = scanner.next().charAt(0);`;

The screenshot shows the same IDE with the `RFOS.java` file. The code snippet is as follows:

```
if (addTip == 'y') {
    System.out.print("Enter tip % [0-100]: ");
    double tipRate = scanner.nextDouble();
    tip = (totalAmount * tipRate) / 100;
    break;
}

// Calculate total amount
double total = totalAmount + tax + tip;
```

The compilation messages pane shows the following error:

```
RFOS.java:79: error: break outside switch or loop
    break;
    ^
1 error
```

Break command implemented in wrong area; removed and put in the while loop.

PSEUDOCODE

START

Define menuItems, prices arrays

FOR i from 0 to Length(menuItems) - 1

Display (i + 1) + " " + menuItems[i] + " " + prices[i]

END FOR

Initialize numDishes, totalAmount, taxRate, tax, addTip, tipRate, tip, grandTotal

Input "How many dishes?" -> numDishes

Validate numDishes is 1-10, else terminate

FOR i from 1 to numDishes

Input "Dish " + i + " [1-10]" -> dishNumber

Validate dishNumber is 1-10, else terminate

Input "Servings?" -> servings

Validate servings is positive, else terminate

totalAmount += prices[dishNumber - 1] * servings

END FOR

Input "Tax %?" -> taxRate

Validate taxRate is non-negative, else terminate

Calculate tax = (totalAmount * taxRate) / 100

Input "Add tip? ['y' - yes or 'n' - no]" -> addTip

IF addTip is 'y' OR addTip is 'Y'

Input "Tip % [0-100]" -> tipRate

Validate tipRate is 0-100, else terminate

$\text{tip} = (\text{totalAmount} * \text{tipRate}) / 100$

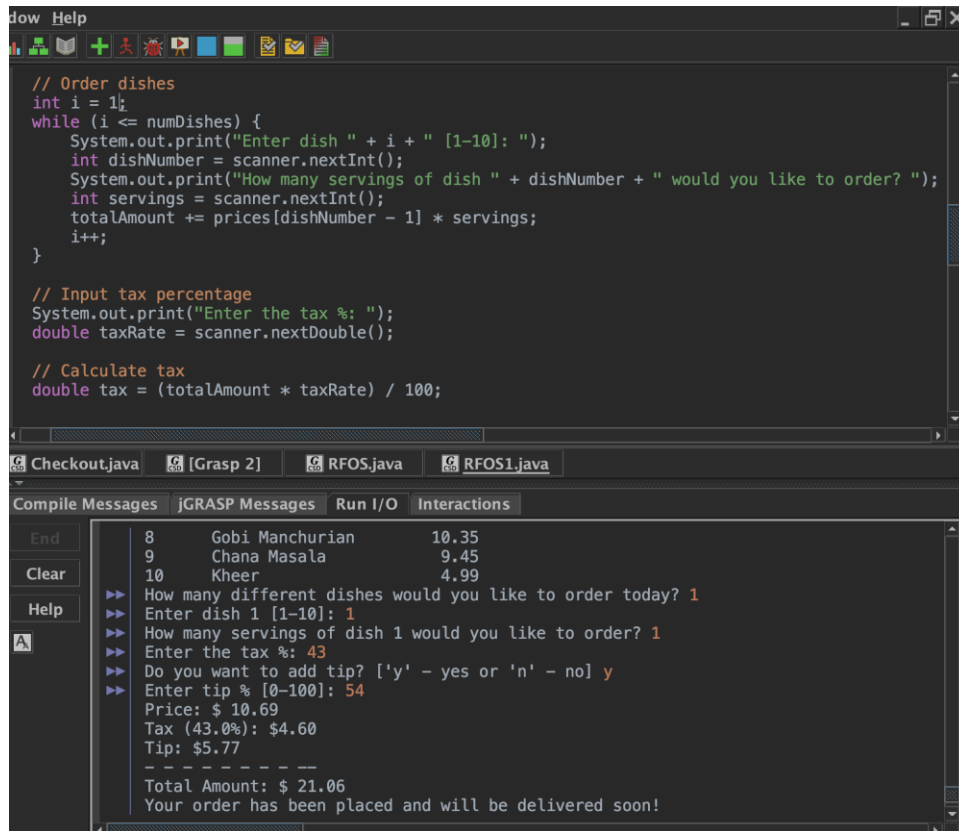
END IF

Calculate grandTotal = totalAmount + tax + tip

Display Reciept

END

TEST RUN 1:



```
// Order dishes
int i = 1;
while (i <= numDishes) {
    System.out.print("Enter dish " + i + " [1-10]: ");
    int dishNumber = scanner.nextInt();
    System.out.print("How many servings of dish " + dishNumber + " would you like to order? ");
    int servings = scanner.nextInt();
    totalAmount += prices[dishNumber - 1] * servings;
    i++;
}

// Input tax percentage
System.out.print("Enter the tax %: ");
double taxRate = scanner.nextDouble();

// Calculate tax
double tax = (totalAmount * taxRate) / 100;
```

Checkout.java [Grasp 2] RFOS.java RFOS1.java

Compile Messages jGRASP Messages Run I/O Interactions

End
Clear
Help

```
8      Gobi Manchurian      10.35
9      Chana Masala        9.45
10     Kheer                4.99
>> How many different dishes would you like to order today? 1
>> Enter dish 1 [1-10]: 1
>> How many servings of dish 1 would you like to order? 1
>> Enter the tax %: 43
>> Do you want to add tip? ['y' - yes or 'n' - no] y
>> Enter tip % [0-100]: 54
Price: $ 10.69
Tax (43.0%): $4.60
Tip: $5.77
-----
Total Amount: $ 21.06
Your order has been placed and will be delivered soon!
```

TEST RUN 2:

```
6      Lamb Biriyani      15.59
7      Veg Biriyani      11.27
8      Gobi Manchurian    10.35
9      Chana Masala       9.45
10     Kheer              4.99
>> How many different dishes would you like to order today? 5
>> Enter dish 1 [1-10]: 4
>> How many servings of dish 4 would you like to order? 3
>> Enter dish 2 [1-10]: 2
>> How many servings of dish 2 would you like to order? 8
>> Enter dish 3 [1-10]: 4
>> How many servings of dish 4 would you like to order? 6
>> Enter dish 4 [1-10]: 4
>> How many servings of dish 4 would you like to order? 2
>> Enter dish 5 [1-10]: 1
>> How many servings of dish 1 would you like to order? 9
>> Enter the tax %: 4.35
>> Do you want to add tip? ['y' - yes or 'n' - no] y
>> Enter tip % [0-100]: 15
Price: $ 237.16
Tax (4.35%): $10.32
Tip: $35.57
-----
Total Amount: $ 283.05
Your order has been placed and will be delivered soon!
```

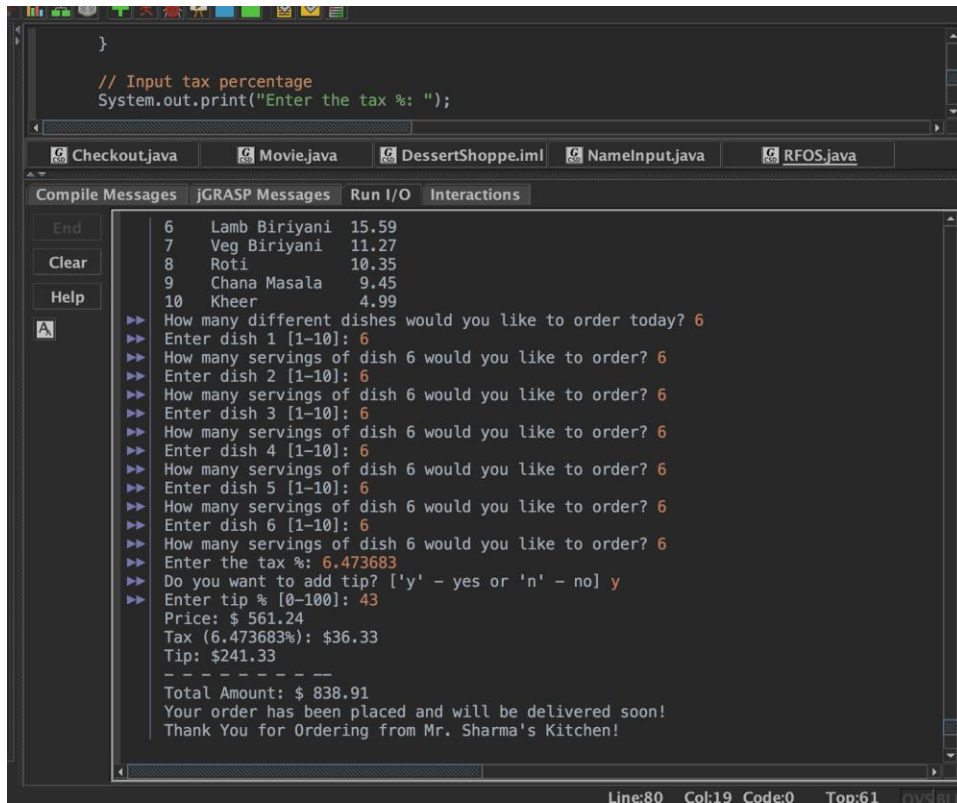
TEST RUN 3:

```
Compile Messages  JGRASP Messages  Run I/O  Interactions
End
Clear
Help
A
4      Chai              2.45
5      Gulab Jamun       7.24
6      Lamb Biriyani     15.59
7      Veg Biriyani      11.27
8      Gobi Manchurian    10.35
9      Chana Masala       9.45
10     Kheer              4.99
>> How many different dishes would you like to order today? 3
>> Enter dish 1 [1-10]: 3
>> How many servings of dish 3 would you like to order? 3
>> Enter dish 2 [1-10]: 3
>> How many servings of dish 3 would you like to order? 3
>> Enter dish 3 [1-10]: 3
>> How many servings of dish 3 would you like to order? 3
>> Enter the tax %: 3
>> Do you want to add tip? ['y' - yes or 'n' - no] n
Price: $ 32.31
Tax (3.0%): $0.97
Tip: $0.00
-----
Total Amount: $ 33.28
Your order has been placed and will be delivered soon!
```

TEST RUN 4:

```
6    Lamb Biriyani      15.59
7    Veg Biriyani      11.27
8    Gobi Manchurian   10.35
9    Chana Masala      9.45
10   Kheer              4.99
▶ How many different dishes would you like to order today? 1
▶ Enter dish 1 [1-10]: 1
▶ How many servings of dish 1 would you like to order? 1
▶ Enter the tax %: 1
▶ Do you want to add tip? ['y' - yes or 'n' - no] 1
Price: $ 10.69
Tax (1.0%): $0.11
Tip: $0.00
-----
Total Amount: $ 10.80
Your order has been placed and will be delivered soon!
Thank You for Ordering from Mr. Sharma's Kitchen!
Come Again!
```

TEST RUN 5:



```
}
// Input tax percentage
System.out.print("Enter the tax %: ");
```

Checkout.java | Movie.java | DessertShoppe.iml | NameInput.java | RFOS.java

Compile Messages | JGRASP Messages | Run I/O | Interactions

End
Clear
Help
A

```
6    Lamb Biriyani      15.59
7    Veg Biriyani      11.27
8    Roti              10.35
9    Chana Masala      9.45
10   Kheer              4.99
▶▶ How many different dishes would you like to order today? 6
▶▶ Enter dish 1 [1-10]: 6
▶▶ How many servings of dish 6 would you like to order? 6
▶▶ Enter dish 2 [1-10]: 6
▶▶ How many servings of dish 6 would you like to order? 6
▶▶ Enter dish 3 [1-10]: 6
▶▶ How many servings of dish 6 would you like to order? 6
▶▶ Enter dish 4 [1-10]: 6
▶▶ How many servings of dish 6 would you like to order? 6
▶▶ Enter dish 5 [1-10]: 6
▶▶ How many servings of dish 6 would you like to order? 6
▶▶ Enter dish 6 [1-10]: 6
▶▶ How many servings of dish 6 would you like to order? 6
▶▶ Enter the tax %: 6.473683
▶▶ Do you want to add tip? ['y' - yes or 'n' - no] y
▶▶ Enter tip % [0-100]: 43
Price: $ 561.24
Tax (6.473683%): $36.33
Tip: $241.33
-----
Total Amount: $ 838.91
Your order has been placed and will be delivered soon!
Thank You for Ordering from Mr. Sharma's Kitchen!
```

Line:80 Col:19 Code:0 Top:61