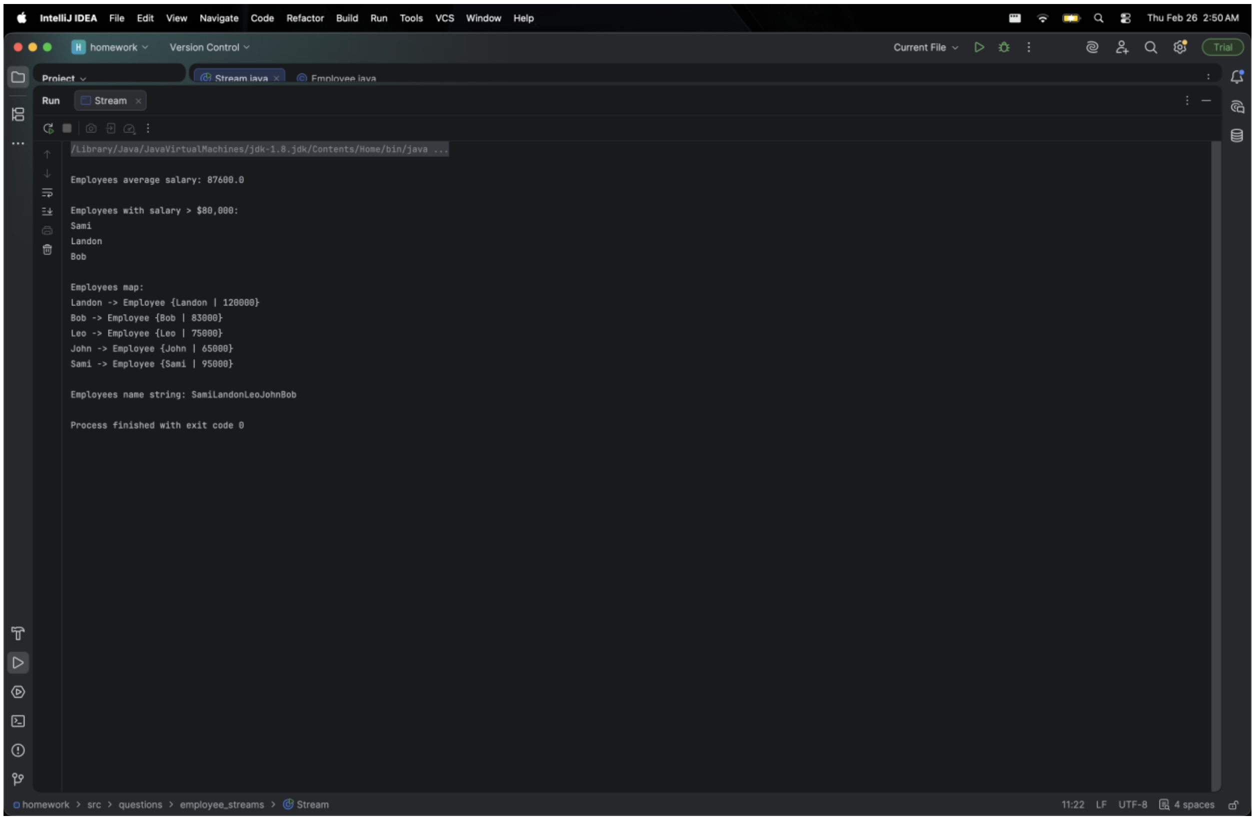
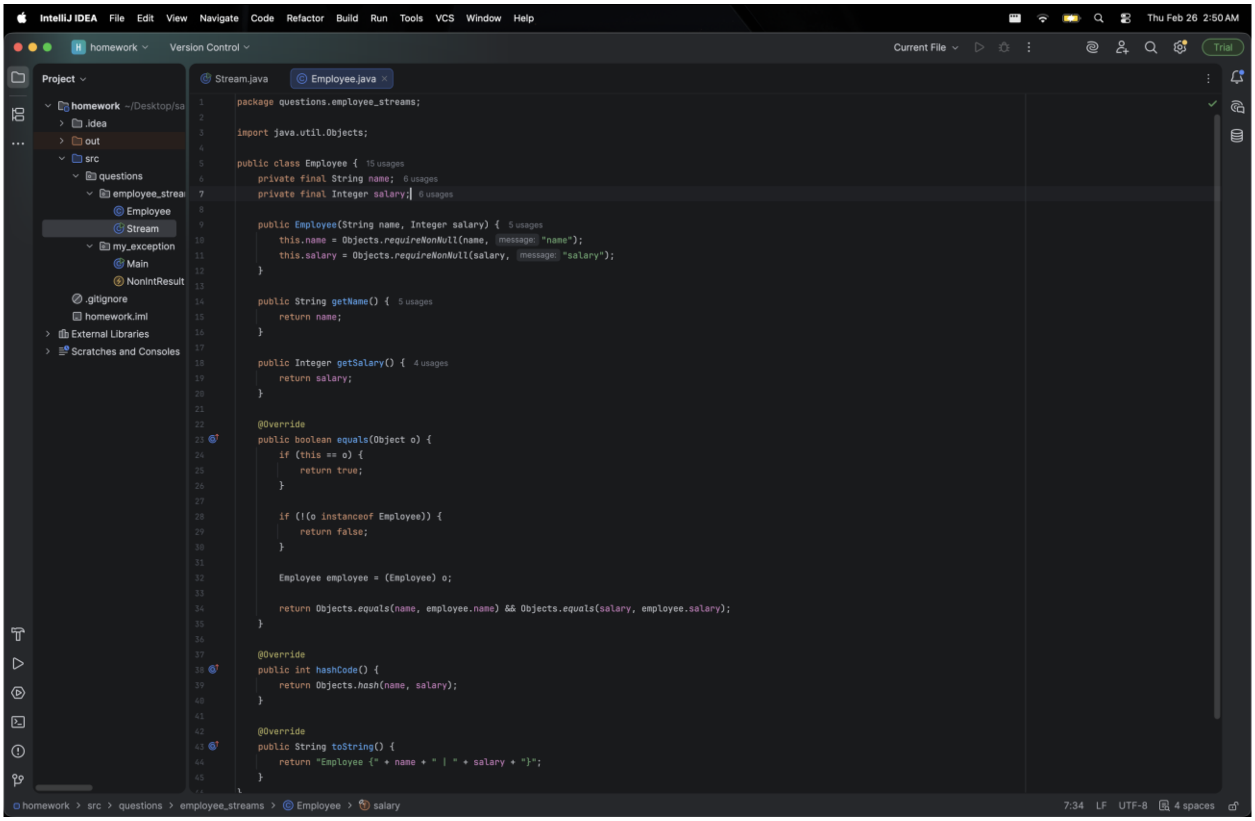
Week 2 – Day 2 Assignment (February 24th, 2026)

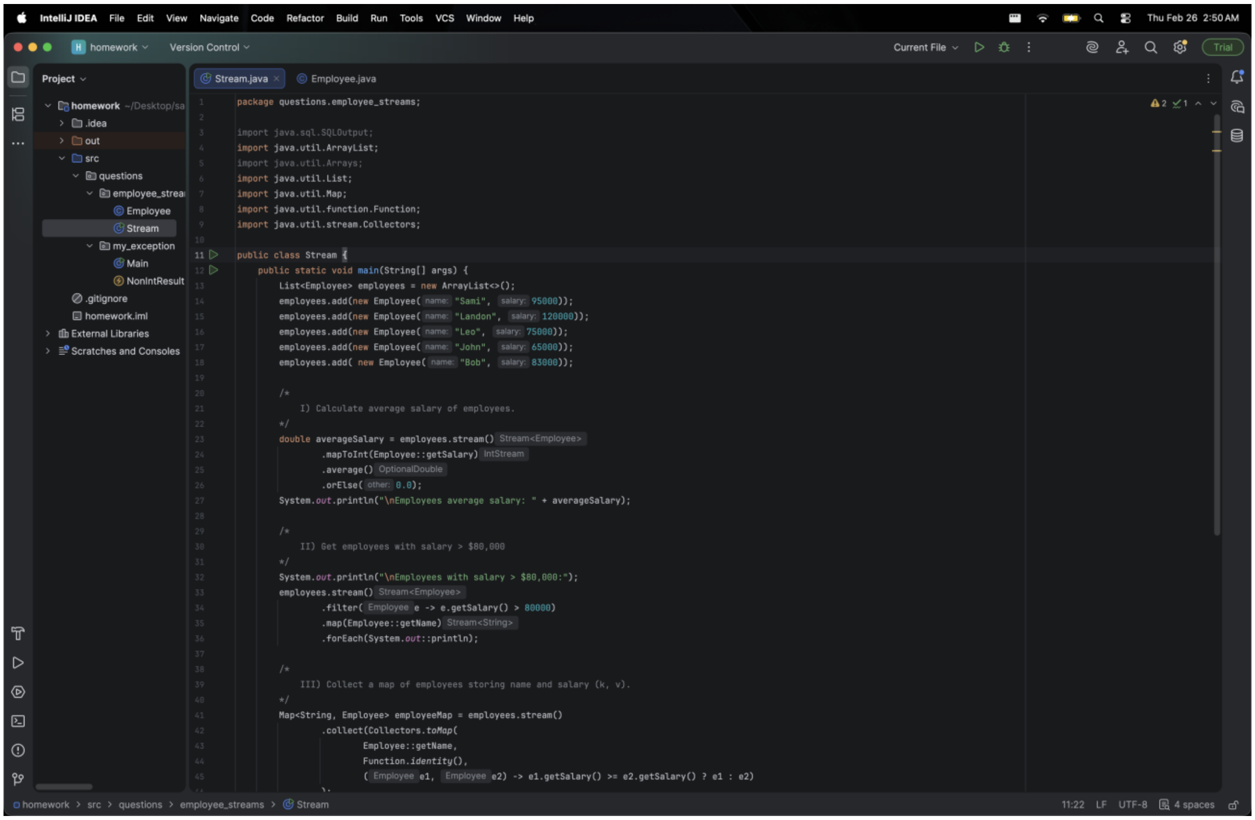
Question 1 – Streams


IntelliJ IDEA File Edit View Navigate Code Refactor Build Run Tools VCS Window Help
Thu Feb 26 2:50 AM
homework
Version Control
Current File
Trial
Project
Stream.java
Employee.java
Run
Stream
homework › src › questions › employee_streams › Stream
11:22 LF UTF-8 4 spaces

```
/Library/Java/JavaVirtualMachines/jdk-1.8.jdk/Contents/Home/bin/java ...

Employees average salary: 87600.0

Employees with salary > $80,000:
Sami
Landon
Bob

Employees map:
Landon -> Employee {Landon | 120000}
Bob -> Employee {Bob | 83000}
Leo -> Employee {Leo | 75000}
John -> Employee {John | 65000}
Sami -> Employee {Sami | 95000}

Employees name string: SamiLandonLeoJohnBob

Process finished with exit code 0
```

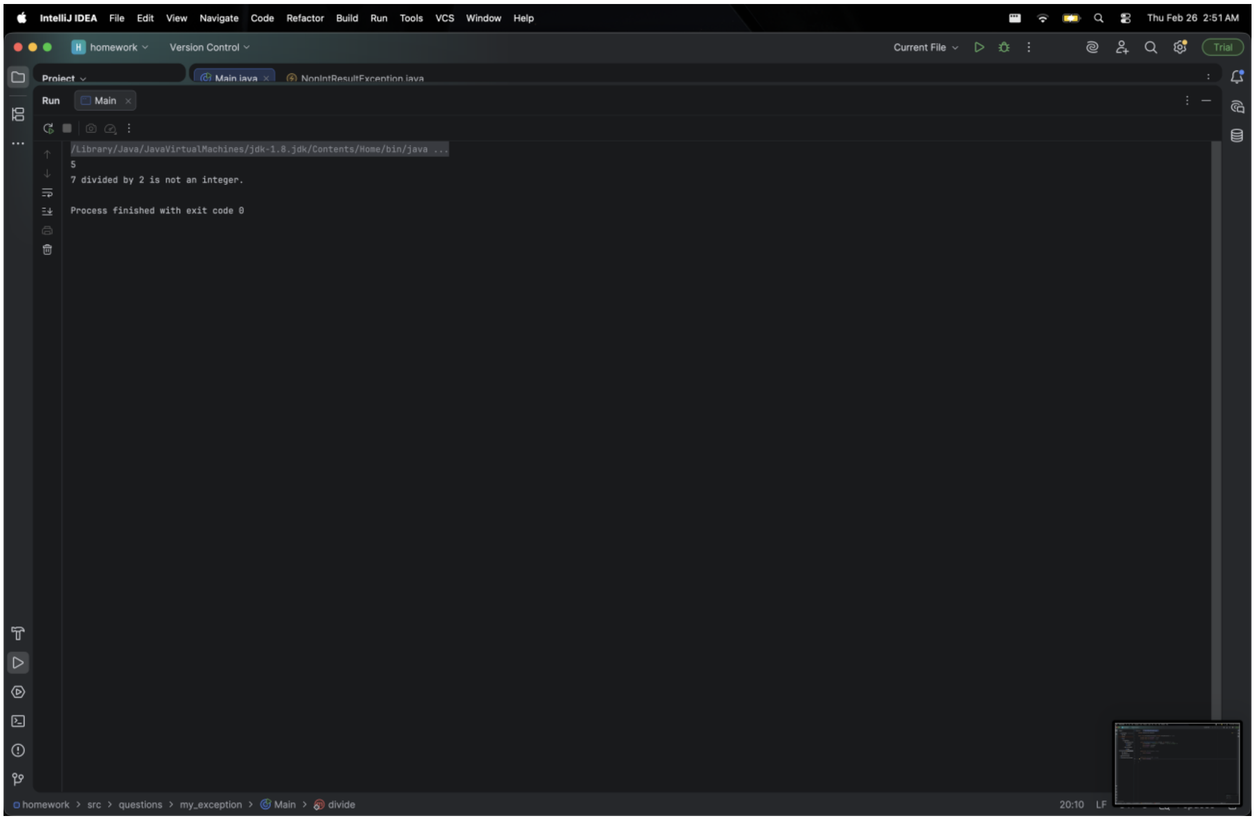


```java
package questions.employee_streams;

import java.util.Objects;

public class Employee {  15 usages
    private final String name;  6 usages
    private final Integer salary;  6 usages

    public Employee(String name, Integer salary) {  5 usages
        this.name = Objects.requireNonNull(name, message: "name");
        this.salary = Objects.requireNonNull(salary, message: "salary");
    }

    public String getName() {  5 usages
        return name;
    }

    public Integer getSalary() {  4 usages
        return salary;
    }

    @Override
    public boolean equals(Object o) {
        if (this == o) {
            return true;
        }

        if (!(o instanceof Employee)) {
            return false;
        }

        Employee employee = (Employee) o;

        return Objects.equals(name, employee.name) && Objects.equals(salary, employee.salary);
    }

    @Override
    public int hashCode() {
        return Objects.hash(name, salary);
    }

    @Override
    public String toString() {
        return "Employee {" + name + " | " + salary + "}";
    }
}
```



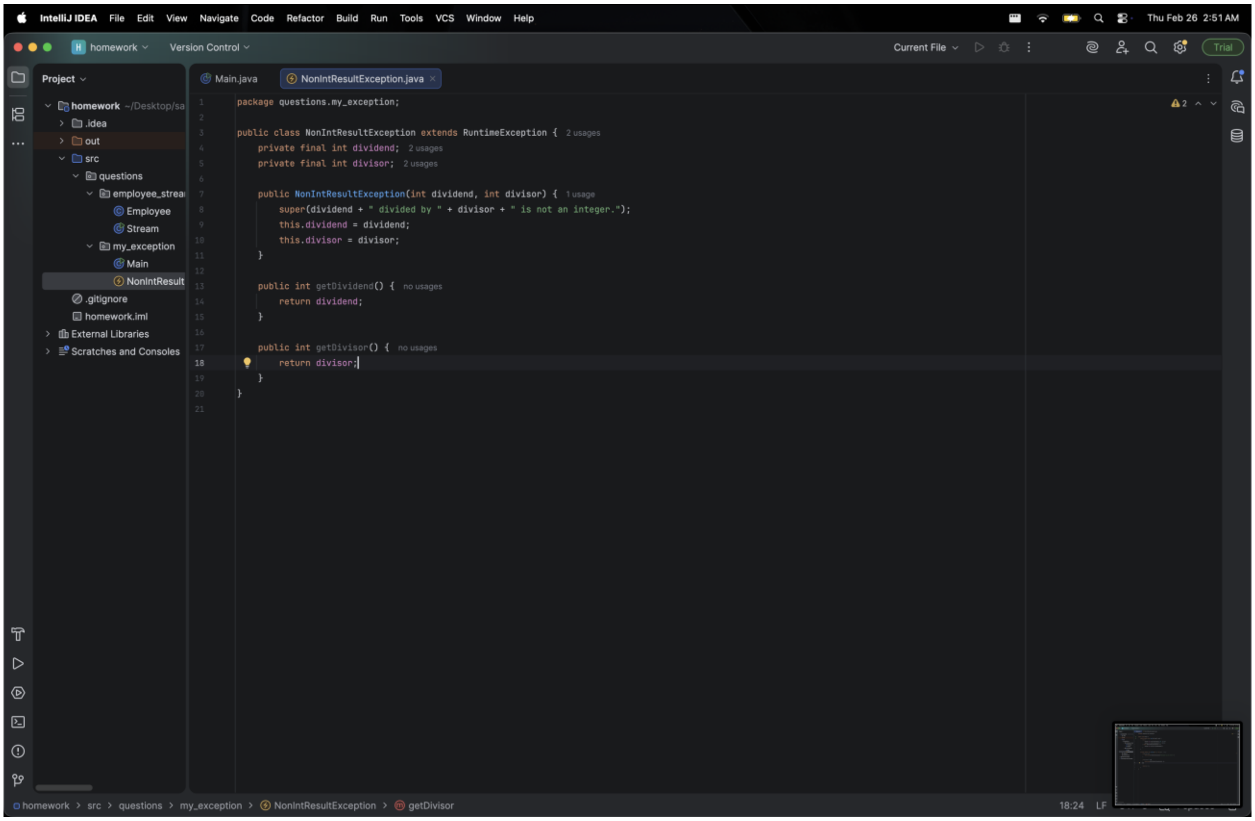
```java
package questions.employee_streams;

import java.sql.SQLOutput;
import java.util.ArrayList;
import java.util.Arrays;
import java.util.List;
import java.util.Map;
import java.util.function.Function;
import java.util.stream.Collectors;

public class Stream {
    public static void main(String[] args) {
        List<Employee> employees = new ArrayList<>();
        employees.add(new Employee("Sami", 95000));
        employees.add(new Employee("Landon", 120000));
        employees.add(new Employee("Leo", 75000));
        employees.add(new Employee("John", 65000));
        employees.add( new Employee("Bob", 83000));

        /*
            I) Calculate average salary of employees.
        */
        double averageSalary = employees.stream()
                .mapToInt(Employee::getSalary)
                .average()
                .orElse(0.0);
        System.out.println("\nEmployees average salary: " + averageSalary);

        /*
            II) Get employees with salary > $80,000
        */
        System.out.println("\nEmployees with salary > $80,000:");
        employees.stream()
                .filter(e -> e.getSalary() > 80000)
                .map(Employee::getName)
                .forEach(System.out::println);

        /*
            III) Collect a map of employees storing name and salary (k, v).
        */
        Map<String, Employee> employeeMap = employees.stream()
                .collect(Collectors.toMap(
                        Employee::getName,
                        Function.identity(),
                        (e1, e2) -> e1.getSalary() >= e2.getSalary() ? e1 : e2)
```

Question 2 – Exceptions

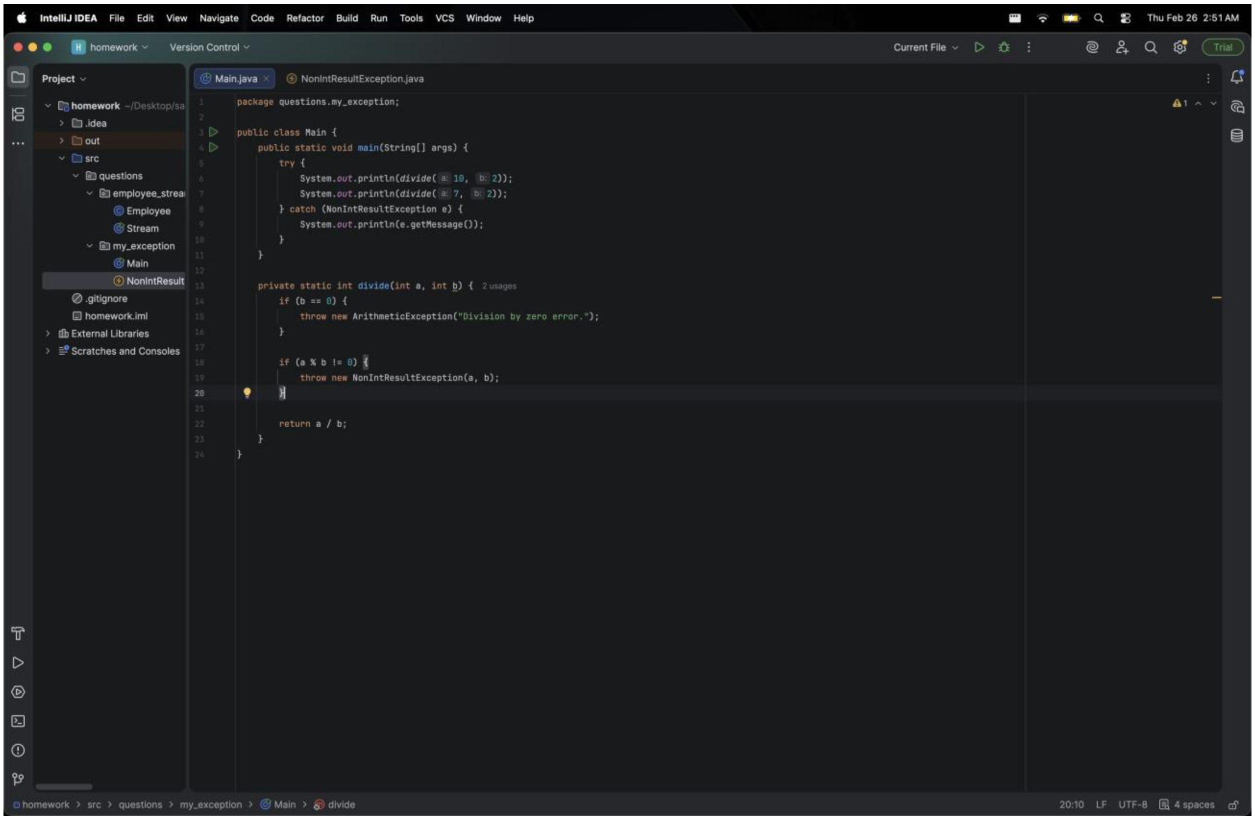


IntelliJ IDEA File Edit View Navigate Code Refactor Build Run Tools VCS Window Help
Thu Feb 26 2:51 AM
homework
Version Control
Current File
Trial
Project
Main.java
NonIntResultException.java
Run
Main
homework › src › questions › my_exception › Main › divide
20:10 LF

```
/Library/Java/JavaVirtualMachines/jdk-1.8.jdk/Contents/Home/bin/java ...
5
7 divided by 2 is not an integer.

Process finished with exit code 0
```



```java
package questions.my_exception;

public class NonIntResultException extends RuntimeException {
    private final int dividend;
    private final int divisor;

    public NonIntResultException(int dividend, int divisor) {
        super(dividend + " divided by " + divisor + " is not an integer.");
        this.dividend = dividend;
        this.divisor = divisor;
    }

    public int getDividend() {
        return dividend;
    }

    public int getDivisor() {
        return divisor;
    }
}
```



```java
package questions.my_exception;

public class Main {
    public static void main(String[] args) {
        try {
            System.out.println(divide( a: 10,  b: 2));
            System.out.println(divide( a: 7,  b: 2));
        } catch (NonIntResultException e) {
            System.out.println(e.getMessage());
        }
    }

    private static int divide(int a, int b) {  2 usages
        if (b == 0) {
            throw new ArithmeticException("Division by zero error.");
        }

        if (a % b != 0) {
            throw new NonIntResultException(a, b);
        }

        return a / b;
    }
}
```