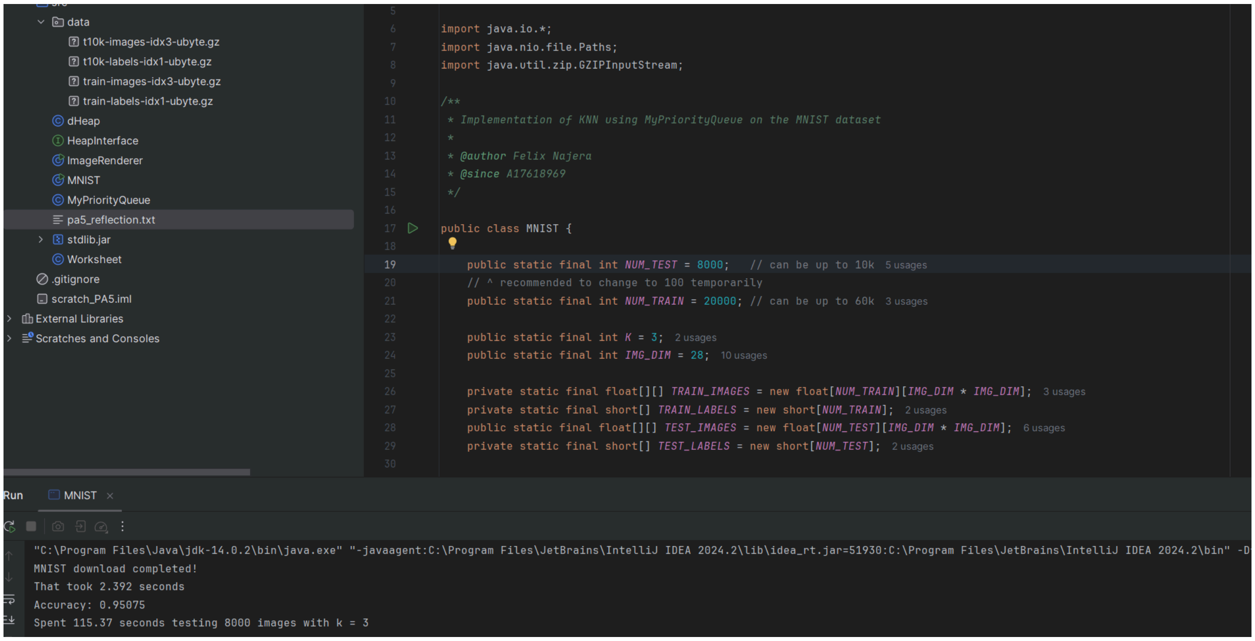
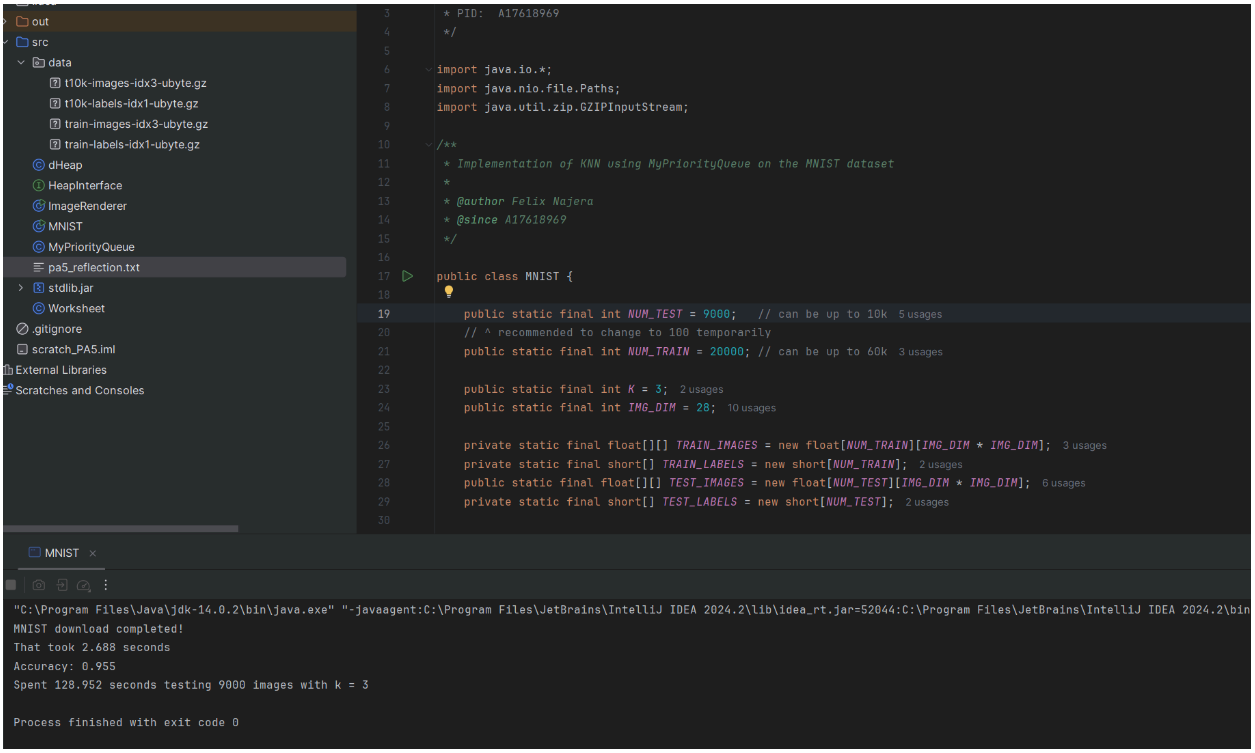


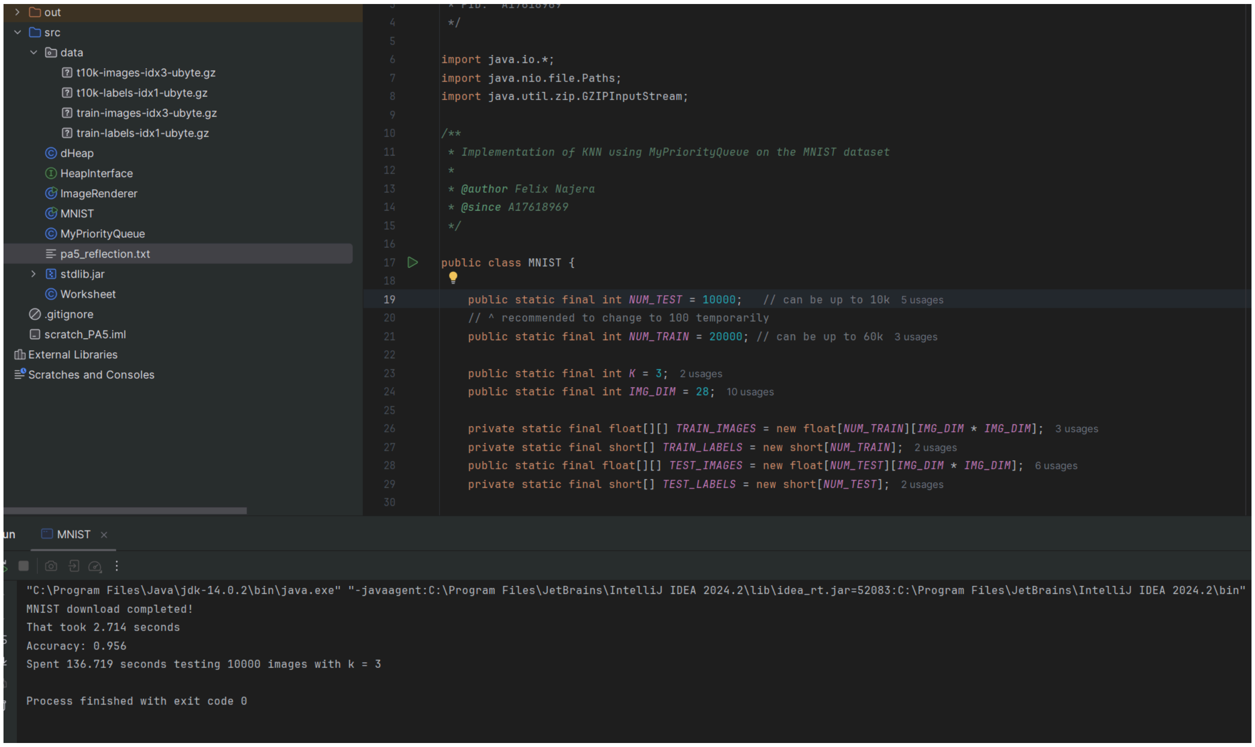
```java

import java.io.*;
import java.nio.file.Paths;
import java.util.zip.GZIPInputStream;

/**
 * Implementation of KNN using MyPriorityQueue on the MNIST dataset
 *
 * @author Felix Najera
 * @since A17618969
 */

public class MNIST {

    public static final int NUM_TEST = 8000;   // can be up to 10k  5 usages
    // ^ recommended to change to 100 temporarily
    public static final int NUM_TRAIN = 20000; // can be up to 60k  3 usages

    public static final int K = 3;  2 usages
    public static final int IMG_DIM = 28;  10 usages

    private static final float[][] TRAIN_IMAGES = new float[NUM_TRAIN][IMG_DIM * IMG_DIM];  3 usages
    private static final short[] TRAIN_LABELS = new short[NUM_TRAIN];  2 usages
    public static final float[][] TEST_IMAGES = new float[NUM_TEST][IMG_DIM * IMG_DIM];  6 usages
    private static final short[] TEST_LABELS = new short[NUM_TEST];  2 usages

```

```
"C:\Program Files\Java\jdk-14.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2024.2\lib\idea_rt.jar=51930:C:\Program Files\JetBrains\IntelliJ IDEA 2024.2\bin" -D
MNIST download completed!
That took 2.392 seconds
Accuracy: 0.95075
Spent 115.37 seconds testing 8000 images with k = 3
```



```java
 * PID:  A17618969
 */

import java.io.*;
import java.nio.file.Paths;
import java.util.zip.GZIPInputStream;

/**
 * Implementation of KNN using MyPriorityQueue on the MNIST dataset
 *
 * @author Felix Najera
 * @since A17618969
 */

public class MNIST {

    public static final int NUM_TEST = 9000;   // can be up to 10k  5 usages
    // ^ recommended to change to 100 temporarily
    public static final int NUM_TRAIN = 20000; // can be up to 60k  3 usages

    public static final int K = 3;  2 usages
    public static final int IMG_DIM = 28;  10 usages

    private static final float[][] TRAIN_IMAGES = new float[NUM_TRAIN][IMG_DIM * IMG_DIM];  3 usages
    private static final short[] TRAIN_LABELS = new short[NUM_TRAIN];  2 usages
    public static final float[][] TEST_IMAGES = new float[NUM_TEST][IMG_DIM * IMG_DIM];  6 usages
    private static final short[] TEST_LABELS = new short[NUM_TEST];  2 usages

```

```
"C:\Program Files\Java\jdk-14.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2024.2\lib\idea_rt.jar=52044:C:\Program Files\JetBrains\IntelliJ IDEA 2024.2\bin
MNIST download completed!
That took 2.688 seconds
Accuracy: 0.955
Spent 128.952 seconds testing 9000 images with k = 3

Process finished with exit code 0
```



```
 * PID:  A17618969
 */

import java.io.*;
import java.nio.file.Paths;
import java.util.zip.GZIPInputStream;

/**
 * Implementation of KNN using MyPriorityQueue on the MNIST dataset
 *
 * @author Felix Najera
 * @since A17618969
 */

public class MNIST {

    public static final int NUM_TEST = 10000;   // can be up to 10k  5 usages
    // ^ recommended to change to 100 temporarily
    public static final int NUM_TRAIN = 20000; // can be up to 60k  3 usages

    public static final int K = 3;  2 usages
    public static final int IMG_DIM = 28;  10 usages

    private static final float[][] TRAIN_IMAGES = new float[NUM_TRAIN][IMG_DIM * IMG_DIM];  3 usages
    private static final short[] TRAIN_LABELS = new short[NUM_TRAIN];  2 usages
    public static final float[][] TEST_IMAGES = new float[NUM_TEST][IMG_DIM * IMG_DIM];  6 usages
    private static final short[] TEST_LABELS = new short[NUM_TEST];  2 usages

```

```
"C:\Program Files\Java\jdk-14.0.2\bin\java.exe" "-javaagent:C:\Program Files\JetBrains\IntelliJ IDEA 2024.2\lib\idea_rt.jar=52083:C:\Program Files\JetBrains\IntelliJ IDEA 2024.2\bin"
MNIST download completed!
That took 2.714 seconds
Accuracy: 0.956
Spent 136.719 seconds testing 10000 images with k = 3

Process finished with exit code 0
```