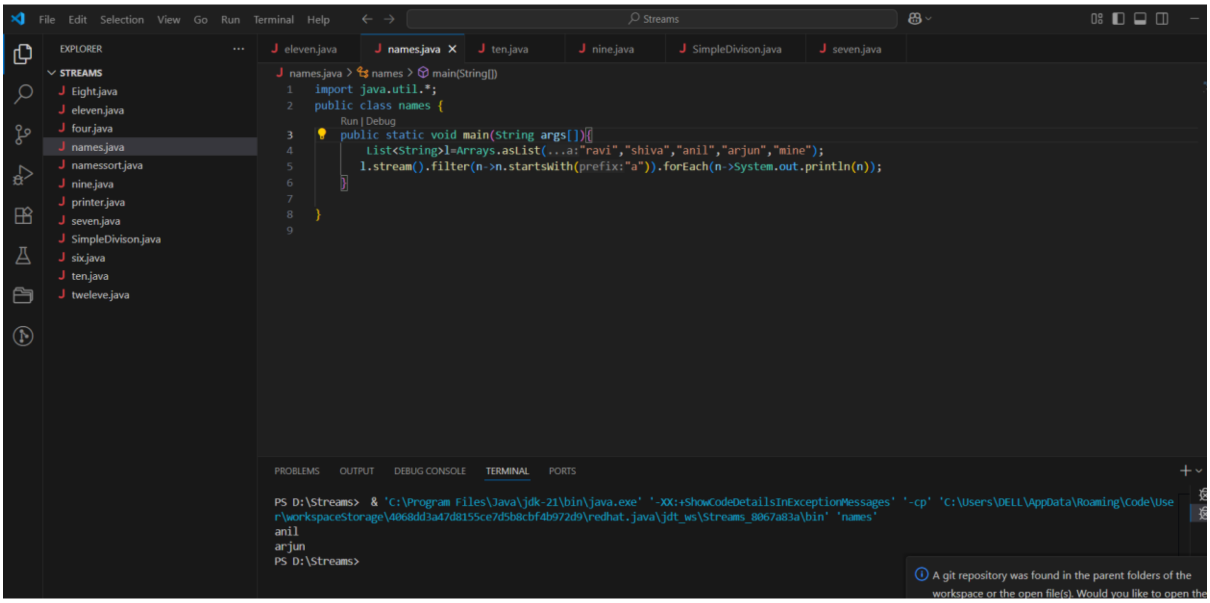
Streams Programs

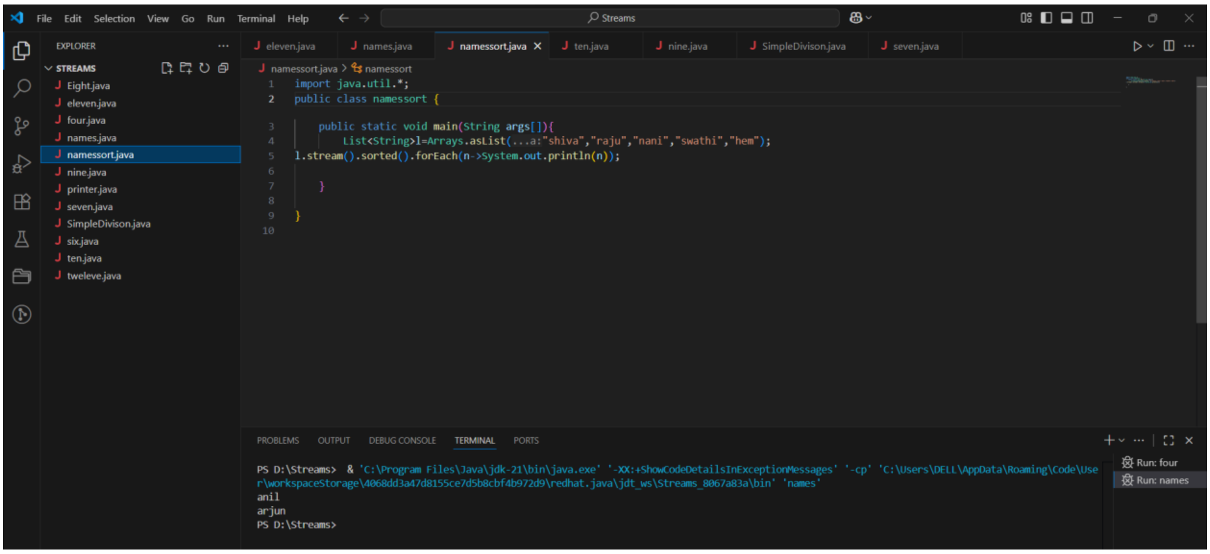
Names that starts with a using filter



```java
import java.util.*;
public class names {
    public static void main(String args[]){
        List<String>l=Arrays.asList(...a:"ravi","shiva","anil","arjun","mine");
       l.stream().filter(n->n.startsWith(prefix:"a")).forEach(n->System.out.println(n));
    }

}
```

```
PS D:\Streams>  & 'C:\Program Files\Java\jdk-21\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\DELL\AppData\Roaming\Code\Use
r\workspaceStorage\4068dd3a47d8155ce7d5b8cbf4b972d9\redhat.java\jdt_ws\Streams_8067a83a\bin' 'names'
anil
arjun
PS D:\Streams>
```

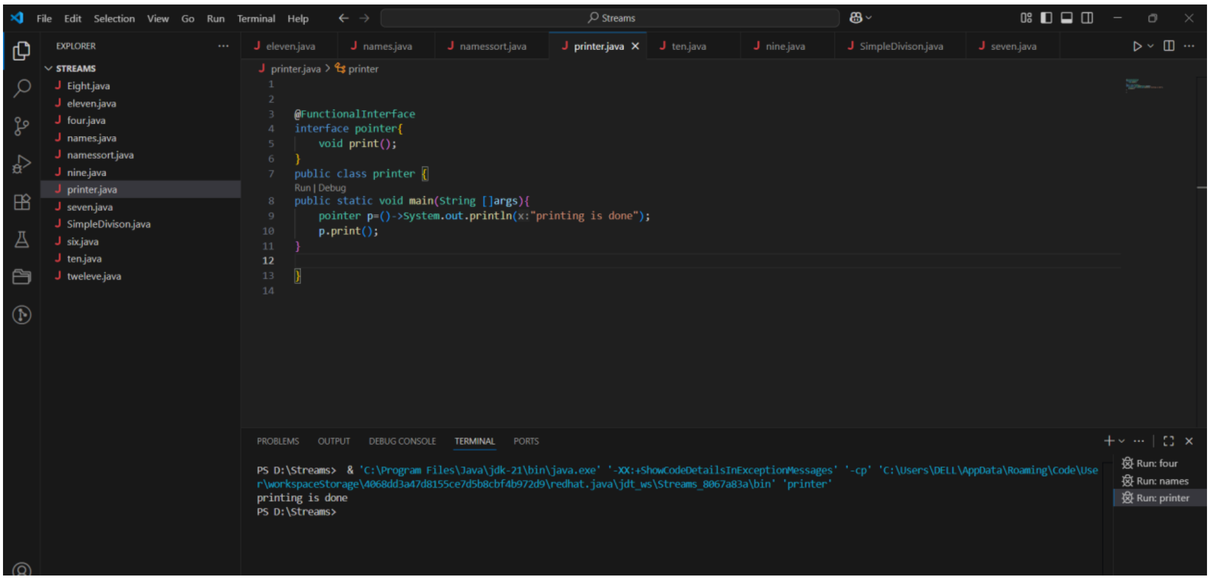
A git repository was found in the parent folders of the workspace or the open file(s). Would you like to open the



```java
import java.util.*;
public class namessort {

    public static void main(String args[]){
        List<String>l=Arrays.asList(...a:"shiva","raju","nani","swathi","hem");
l.stream().sorted().forEach(n->System.out.println(n));

    }

}
```

```
PS D:\Streams>  & 'C:\Program Files\Java\jdk-21\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\DELL\AppData\Roaming\Code\Use
r\workspaceStorage\4068dd3a47d8155ce7d5b8cbf4b972d9\redhat.java\jdt_ws\Streams_8067a83a\bin' 'names'
anil
arjun
PS D:\Streams>
```

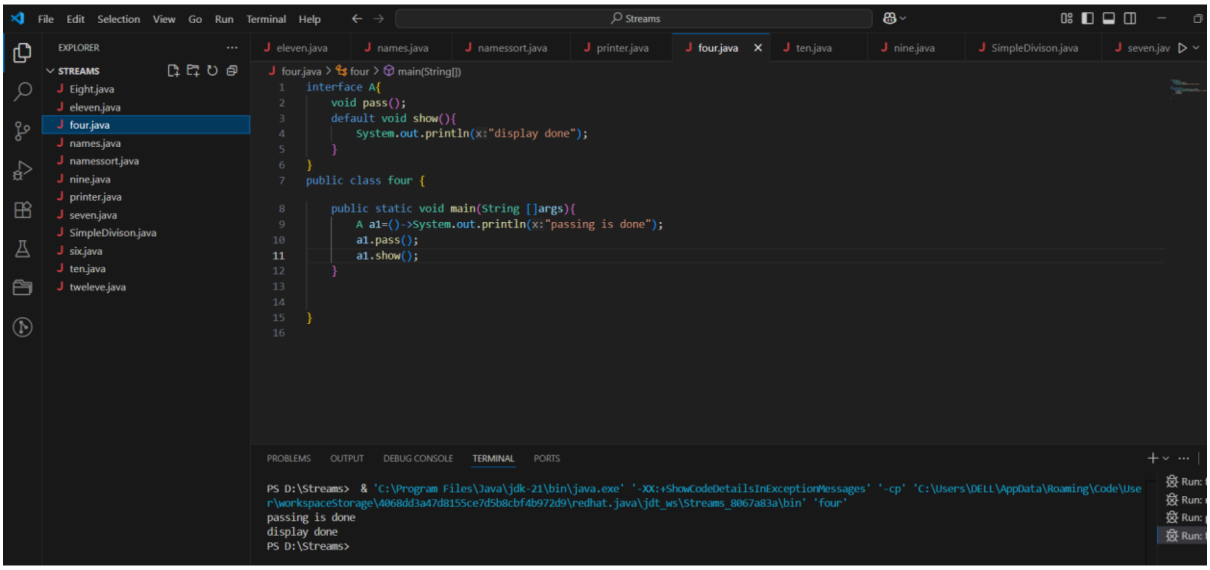
Functional Interface



```java


@FunctionalInterface
interface pointer{
    void print();
}
public class printer {
Run | Debug
public static void main(String []args){
    pointer p=()->System.out.println(x:"printing is done");
    p.print();
}

}
```

```
PS D:\Streams>  & 'C:\Program Files\Java\jdk-21\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\DELL\AppData\Roaming\Code\Use
r\workspaceStorage\4068dd3a47d8155ce7d5b8cbf4b972d9\redhat.java\jdt_ws\Streams_8067a83a\bin' 'printer'
printing is done
PS D:\Streams>
```

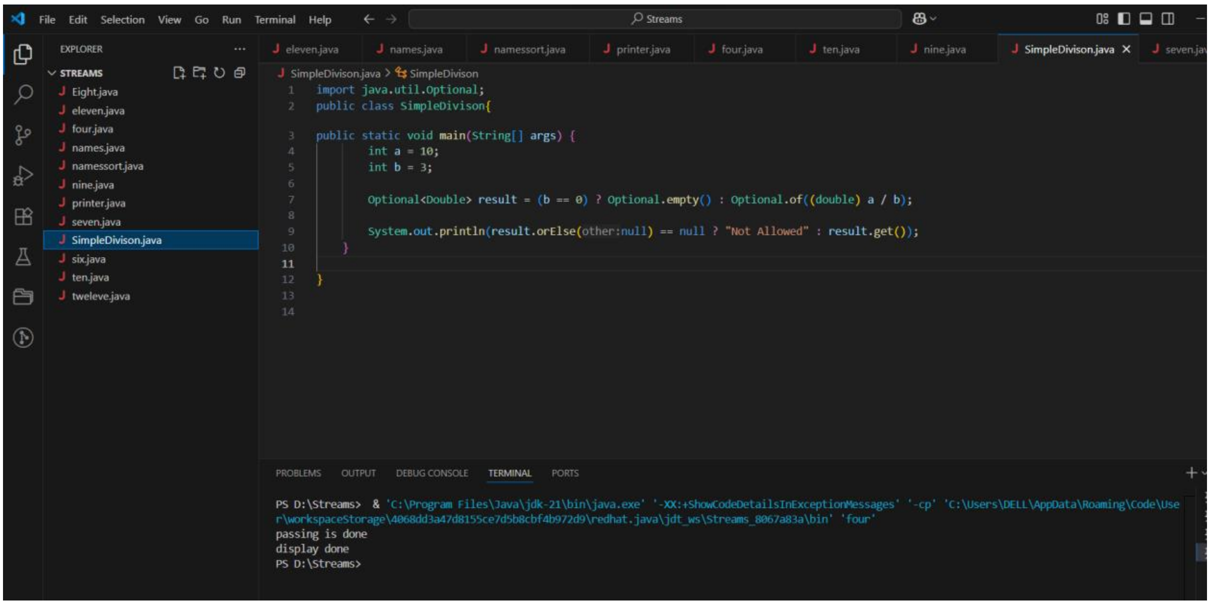
Default Methods


File Edit Selection View Go Run Terminal Help
Streams
EXPLORER
STREAMS
Eight.java
eleven.java
four.java
names.java
namessort.java
nine.java
printer.java
seven.java
SimpleDivison.java
six.java
ten.java
tweleve.java
eleven.java names.java namessort.java printer.java four.java ten.java nine.java SimpleDivison.java seven.jav
four.java > four > main(String[])
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
Run:
Run:
Run:
Run:

```java
interface A{
    void pass();
    default void show(){
        System.out.println(x:"display done");
    }
}
public class four {

    public static void main(String []args){
        A a1=()->System.out.println(x:"passing is done");
        a1.pass();
        a1.show();
    }


}

```

```
PS D:\Streams>  & 'C:\Program Files\Java\jdk-21\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\DELL\AppData\Roaming\Code\Use
r\workspaceStorage\4068dd3a47d8155ce7d5b8cbf4b972d9\redhat.java\jdt_ws\Streams_8067a83a\bin' 'four'
passing is done
display done
PS D:\Streams>
```

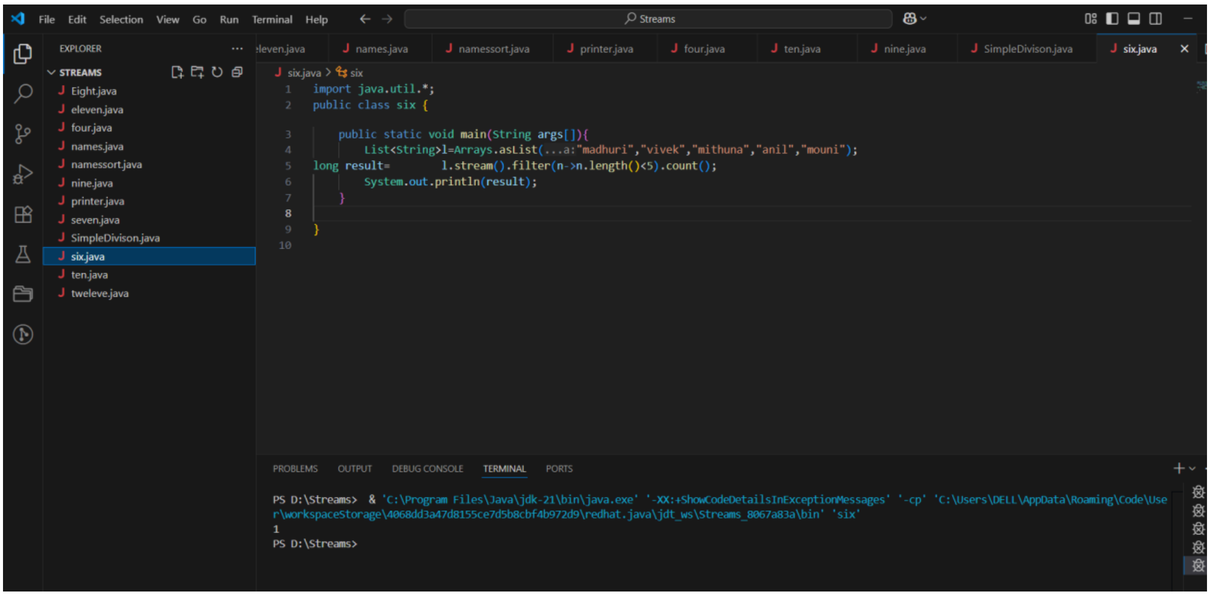
Optional Class



```java
import java.util.Optional;
public class SimpleDivison{

public static void main(String[] args) {
        int a = 10;
        int b = 3;

        Optional<Double> result = (b == 0) ? Optional.empty() : Optional.of((double) a / b);

        System.out.println(result.orElse(other:null) == null ? "Not Allowed" : result.get());
    }

}
```

```
PS D:\Streams>  & 'C:\Program Files\Java\jdk-21\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\DELL\AppData\Roaming\Code\Use
r\workspaceStorage\4068dd3a47d8155ce7d5b8cbf4b972d9\redhat.java\jdt_ws\Streams_8067a83a\bin' 'four'
passing is done
display done
PS D:\Streams>
```

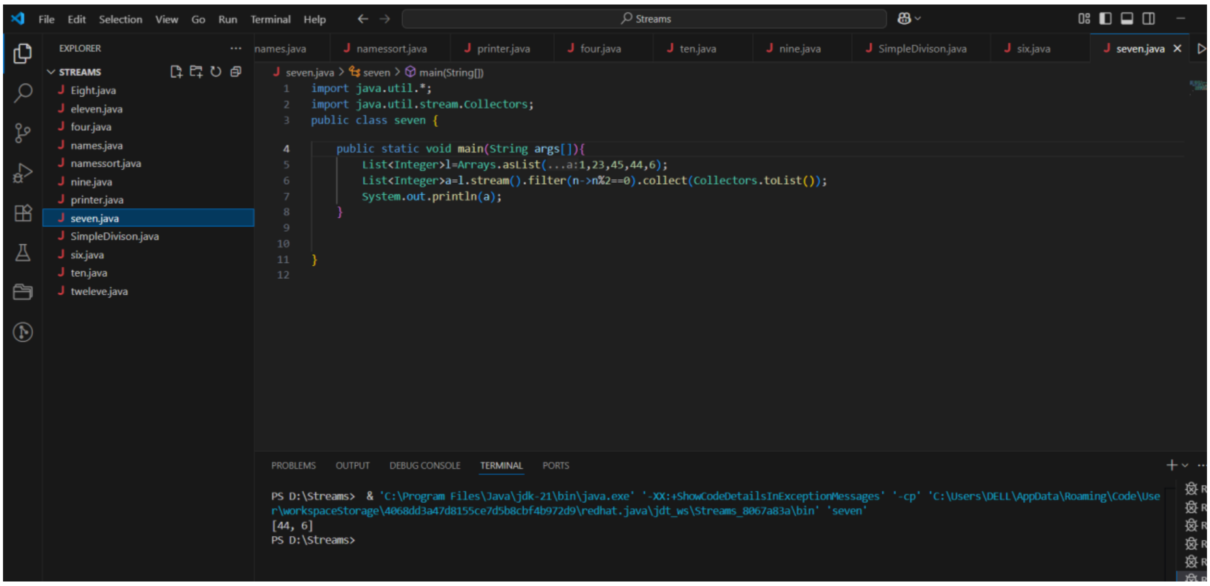
Filter The records where length less than 5



```java
import java.util.*;
public class six {

    public static void main(String args[]){
        List<String>l=Arrays.asList(...a:"madhuri","vivek","mithuna","anil","mouni");
long result=        l.stream().filter(n->n.length()<5).count();
        System.out.println(result);
    }

}
```

```
PS D:\Streams>  & 'C:\Program Files\Java\jdk-21\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\DELL\AppData\Roaming\Code\Use
r\workspaceStorage\4068dd3a47d8155ce7d5b8cbf4b972d9\redhat.java\jdt_ws\Streams_8067a83a\bin' 'six'
1
PS D:\Streams>
```

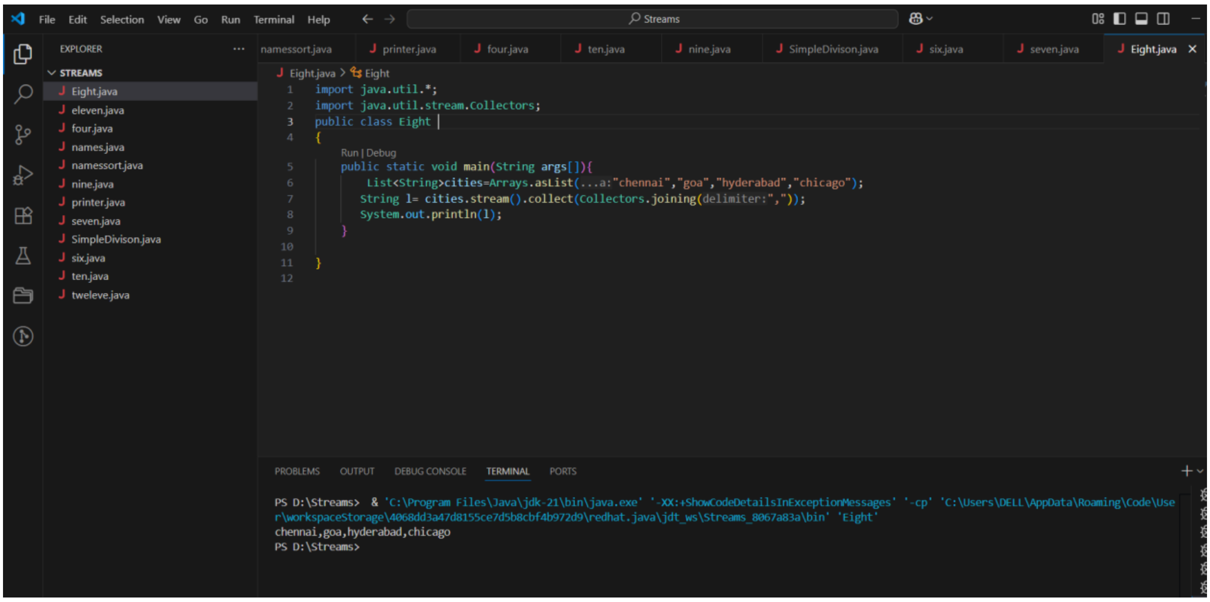
Square root of integers using streams



```java
import java.util.*;
import java.util.stream.Collectors;
public class seven {

    public static void main(String args[]){
        List<Integer>l=Arrays.asList(...a:1,23,45,44,6);
        List<Integer>a=l.stream().filter(n->n%2==0).collect(Collectors.toList());
        System.out.println(a);
    }


}
```

```
PS D:\Streams>  & 'C:\Program Files\Java\jdk-21\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\DELL\AppData\Roaming\Code\Use
r\workspaceStorage\4068dd3a47d8155ce7d5b8cbf4b972d9\redhat.java\jdt_ws\Streams_8067a83a\bin' 'seven'
[44, 6]
PS D:\Streams>
```

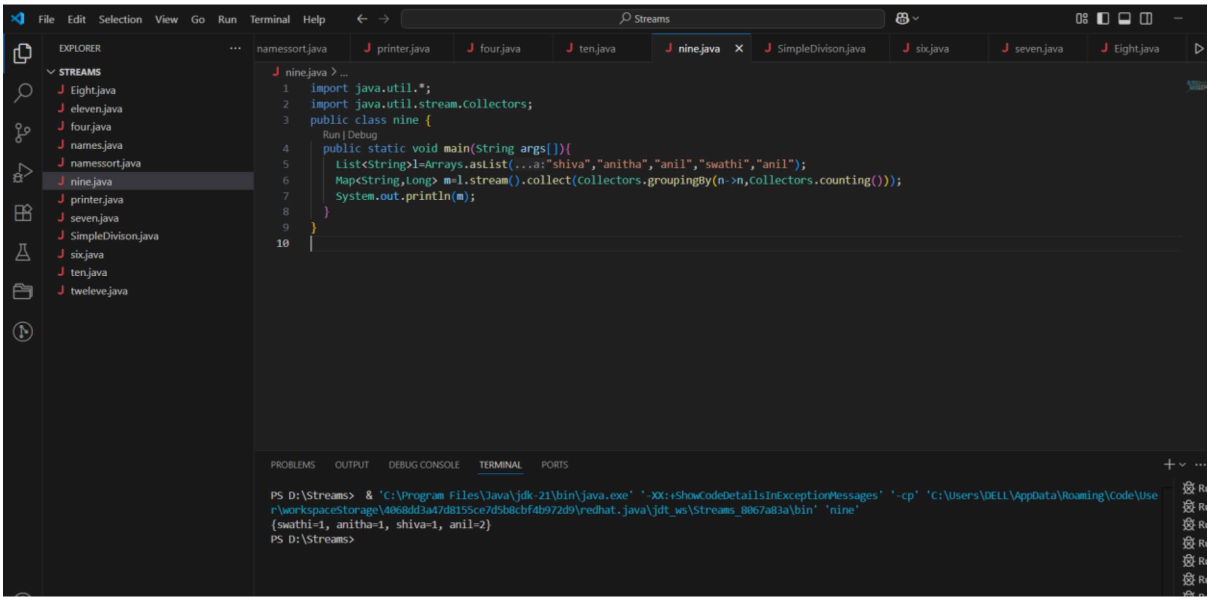
Printing cities using collections



```java
import java.util.*;
import java.util.stream.Collectors;
public class Eight 
{
    public static void main(String args[]){
         List<String>cities=Arrays.asList(...a:"chennai","goa","hyderabad","chicago");
       String l= cities.stream().collect(Collectors.joining(delimiter:","));
       System.out.println(l);
    }

}
```

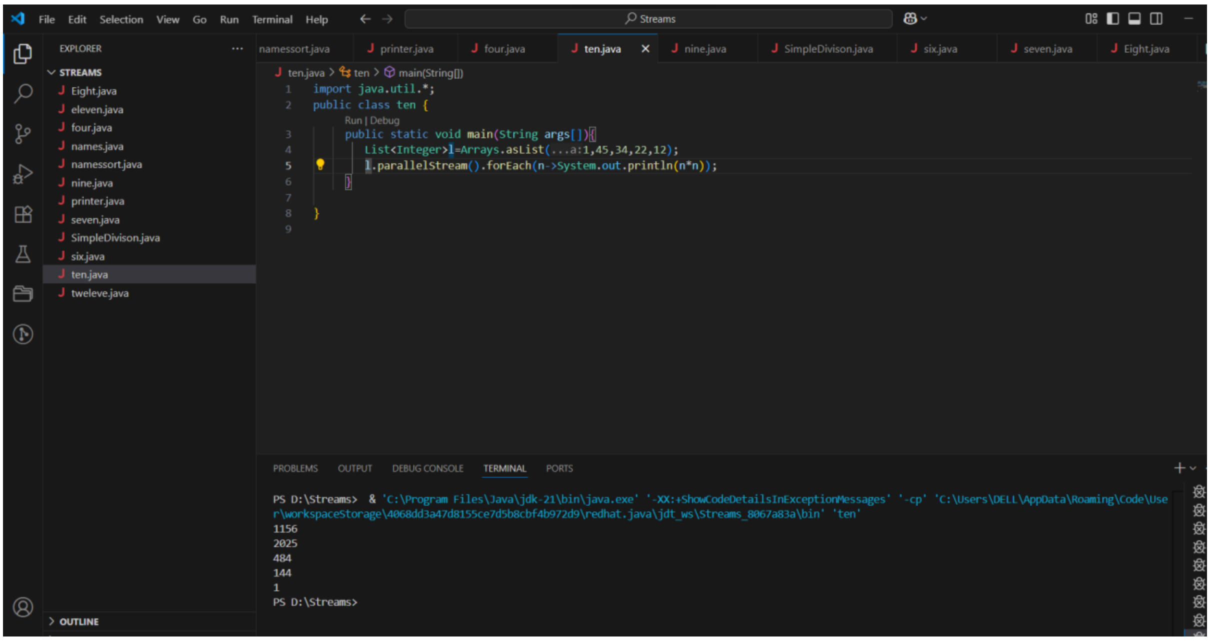
```
PS D:\Streams>  & 'C:\Program Files\Java\jdk-21\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\DELL\AppData\Roaming\Code\Use
r\workspaceStorage\4068dd3a47d8155ce7d5b8cbf4b972d9\redhat.java\jdt_ws\Streams_8067a83a\bin' 'Eight'
chennai,goa,hyderabad,chicago
PS D:\Streams>
```

Repeation of each records(Names)



```java
import java.util.*;
import java.util.stream.Collectors;
public class nine {
  public static void main(String args[]){
    List<String>l=Arrays.asList(...a:"shiva","anitha","anil","swathi","anil");
    Map<String,Long> m=l.stream().collect(Collectors.groupingBy(n->n,Collectors.counting()));
    System.out.println(m);
  }
}

```

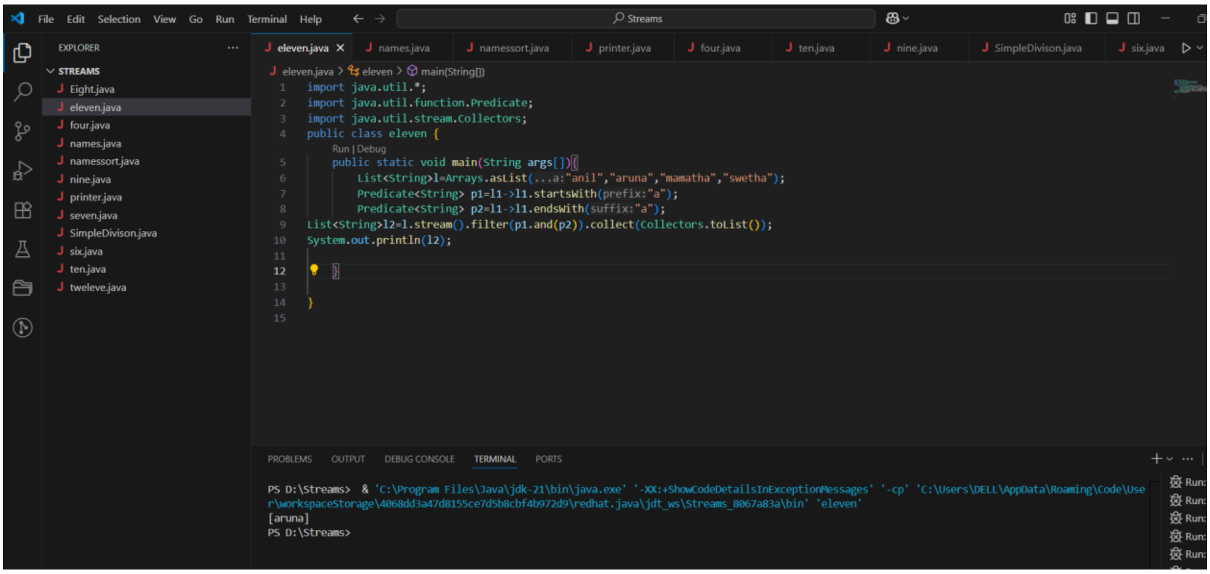
```
PS D:\Streams>  & 'C:\Program Files\Java\jdk-21\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\DELL\AppData\Roaming\Code\Use
r\workspaceStorage\4068dd3a47d8155ce7d5b8cbf4b972d9\redhat.java\jdt_ws\Streams_8067a83a\bin' 'nine'
{swathi=1, anitha=1, shiva=1, anil=2}
PS D:\Streams>
```



```java
import java.util.*;
public class ten {
    public static void main(String args[]){
        List<Integer>l=Arrays.asList(...a:1,45,34,22,12);
        l.parallelStream().forEach(n->System.out.println(n*n));
    }

}
```

```
PS D:\Streams>  & 'C:\Program Files\Java\jdk-21\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\DELL\AppData\Roaming\Code\Use
r\workspaceStorage\4068dd3a47d8155ce7d5b8cbf4b972d9\redhat.java\jdt_ws\Streams_8067a83a\bin' 'ten'
1156
2025
484
144
1
PS D:\Streams>
```

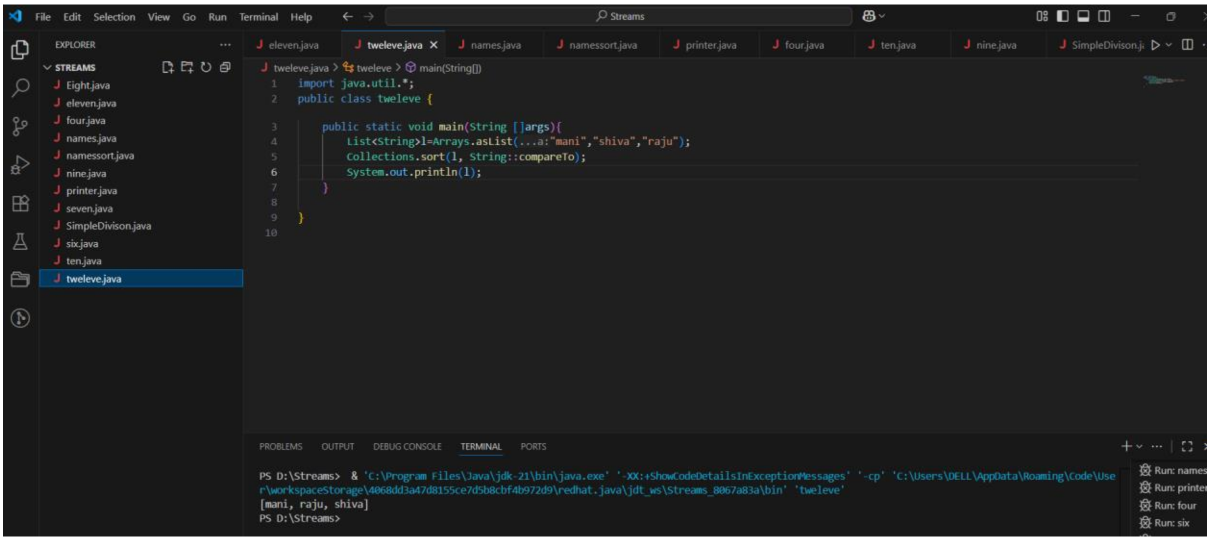
Names that's starts and ending with same letter



```java
import java.util.*;
import java.util.function.Predicate;
import java.util.stream.Collectors;
public class eleven {
    public static void main(String args[]){
        List<String>l=Arrays.asList(...a:"anil","aruna","mamatha","swetha");
        Predicate<String> p1=l1->l1.startsWith(prefix:"a");
        Predicate<String> p2=l1->l1.endsWith(suffix:"a");
List<String>l2=l.stream().filter(p1.and(p2)).collect(Collectors.toList());
System.out.println(l2);

    }

}
```

```
PS D:\Streams>  & 'C:\Program Files\Java\jdk-21\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\DELL\AppData\Roaming\Code\Use
r\workspaceStorage\4068dd3a47d8155ce7d5b8cbf4b972d9\redhat.java\jdt_ws\Streams_8067a83a\bin' 'eleven'
[aruna]
PS D:\Streams>
```

Sorting records based on alphabetic order



```java
import java.util.*;
public class tweleve {

    public static void main(String []args){
        List<String>l=Arrays.asList(...a:"mani","shiva","raju");
        Collections.sort(l, String::compareTo);
        System.out.println(l);
    }

}
```

```
PS D:\Streams>  & 'C:\Program Files\Java\jdk-21\bin\java.exe' '-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\DELL\AppData\Roaming\Code\Use
r\workspaceStorage\4068dd3a47d8155ce7d5b8cbf4b972d9\redhat.java\jdt_ws\Streams_8067a83a\bin' 'tweleve'
[mani, raju, shiva]
PS D:\Streams>
```