1z0-809.96q

Number: 1z0-809
Passing Score: 800
Time Limit: 120 min

1z0-809

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Java SE 8 Programmer II

Exam A

QUESTION 1
Given:

```
class Sum extends RecursiveAction   {                 //line n1
    static final int THRESHOLD_SIZE  = 3;
    int stIndex, lstIndex;
    int [ ] data;
    public Sum (int [ ]data, int start, int end)   {
        this.data = data;
        this stIndex = start;
        this. lstIndex = end;
    }
    protected void compute ( )    {
        int sum = 0;
        if (lstIndex – stIndex <= THRESHOLD_SIZE)  {
            for (int i = stIndex; i < lstIndex; i++)   {
                sum += data [i];
            }
            System.out.println(sum);
        } else {
            new Sum (data, stIndex + THRESHOLD_SIZE, lstIndex).fork( );

            new Sum (data, stIndex,
                    Math.min  (lstIndex, stIndex + THRESHOLD_SIZE)
                    ).compute ();
        }
    }
}
```

and the code fragment:

```
ForkJoinPool fjPool = new ForkJoinPool ( );
int data [ ] = {1, 2, 3, 4, 5, 6, 7, 8, 9, 10}
fjPool.invoke (new Sum (data, 0, data.length));
```

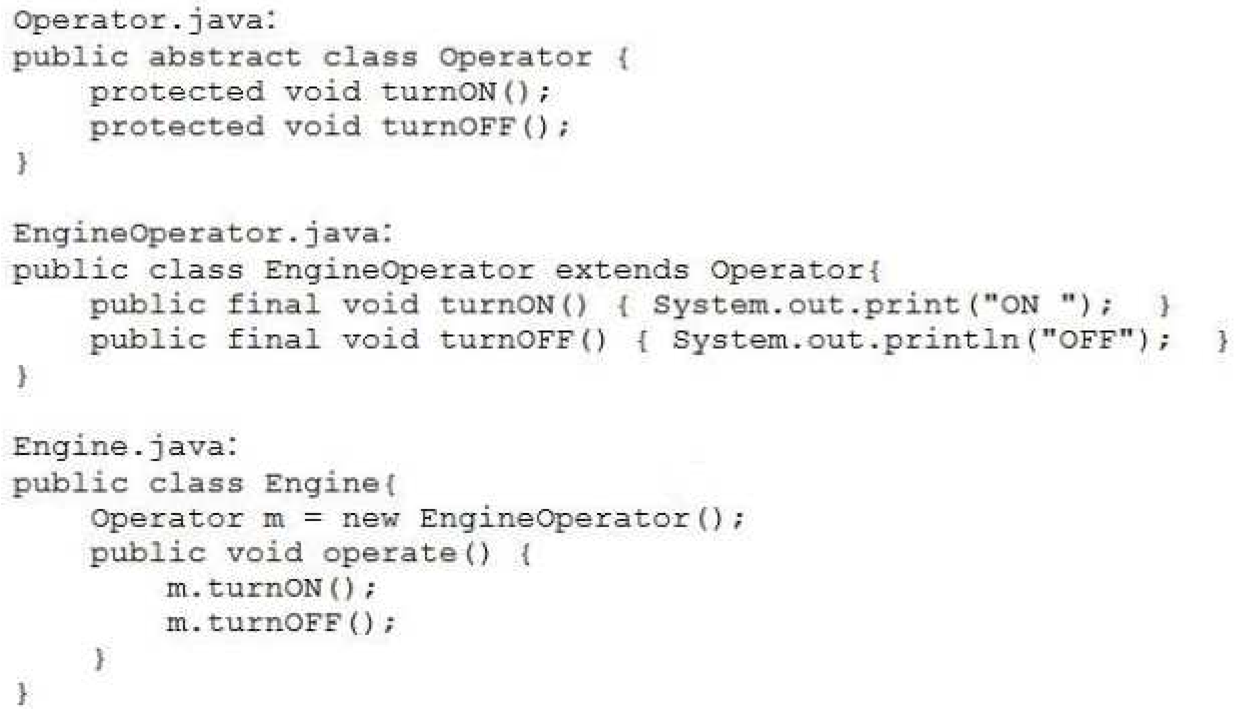
and given that the sum of all integers from 1 to 10 is 55.
Which statement is true?

A. The program prints several values that total 55.
B. The program prints 55.
C. A compilation error occurs at `line n1`.
D. The program prints several values whose sum exceeds 55.

Correct Answer: C
Section: (none)
Explanation

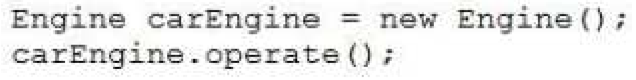
Explanation/Reference:

QUESTION 2
Given the content of `Operator.java, EngineOperator.java,` and `Engine.java` files:



```
Operator.java:
public abstract class Operator {
    protected void turnON();
    protected void turnOFF();
}

EngineOperator.java:
public class EngineOperator extends Operator{
    public final void turnON() { System.out.print("ON ");  }
    public final void turnOFF() { System.out.println("OFF");  }
}

Engine.java:
public class Engine{
    Operator m = new EngineOperator();
    public void operate() {
        m.turnON();
        m.turnOFF();
    }
}
```

and the code fragment:



```
Engine carEngine = new Engine();
carEngine.operate();
```

What is the result?

A. The `Engine.java` file fails to compile.
B. The `EngineOperator.java` file fails to compile.
C. The `Operator.java` file fails to compile.
D. `ON OFF`

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 3

Given the code fragment:

```
Stream<List<String>> iStr= Stream.of (
    Arrays.asList (“1”, “John”),
    Arrays.asList (“2”, null)0;
Stream<<String> nInSt = iStr.flatMapToInt ((x) -> x.stream ());
nInSt.forEach (System.out :: print);
```

What is the result?

A. `1John2null`

B. `12`

C. A `NullPointerException` is thrown at run time.

D. A compilation error occurs.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 4

Given the code fragment:

```
Path file = Paths.get (“courses.txt”);
// line n1
```

Assume the `courses.txt` is accessible.
Which code fragment can be inserted at `line n1` to enable the code to print the content of the `courses.txt` file?

A.
```
List<String> fc = Files.list(file);
fc.stream().forEach (s - > System.out.println(s));
```

B.
```
Stream<String> fc = Files.readAllLines (file);
fc.forEach (s - > System.out.println(s));
```

C.
```
List<String> fc = readAllLines(file);
fc.stream().forEach (s - > System.out.println(s));
```

D.
```
Stream<String> fc = Files.lines (file);
fc.forEach (s - > System.out.println(s));
```

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 5
Given the code fragment:

```
public void recDelete (String dirName) throws IOException   {
    File [ ] listOfFiles = new File (dirName) .listFiles();
    if (listOfFiles ! = null && listOfFiles.length >0)   {
        for (File aFile : listOfFiles)   {
            if (aFile.isDirectory ())    {
                recDelete (aFile.getAbsolutePath ());
            }    else   {
                if (aFile.getName ().endsWith (“.class”))
                    aFile.delete ();
            }
        }
    }
}
```

Assume that `Projects` contains subdirectories that contain `.class` files and is passed as an argument to the `recDelete ()` method when it is invoked.
What is the result?

A. The method deletes all the `.class` files in the `Projects` directory and its subdirectories.
B. The method deletes the `.class` files of the `Projects` directory only.
C. The method executes and does not make any changes to the `Projects` directory.
D. The method throws an IOException.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 6
Given the definition of the Country class:

```
public class country {
    public enum Continent {ASIA, EUROPE}
    String name;
    Continent region;

    public Country (String na, Continent reg)   {
        name = na, region = reg;
        }
        public String getName () {return name;}
        public Continent getRegion () {return region;}
}
```

and the code fragment:

```
List<Country> couList = Arrays.asList (
    new Country (“Japan”, Country.Continent.ASIA),
    new Country (“Italy”, Country.Continent.EUROPE),
    new Country (“Germany”, Country.Continent.EUROPE));
Map<Country.Continent, List<String>> regionNames = couList.stream ()
    .collect(Collectors.groupingBy (Country ::getRegion,
    Collectors.mapping(Country::getName, Collectors.toList())))));
System.out.println(regionNames);
```

A. `{EUROPE = [Italy, Germany], ASIA = [Japan]}`

B. `{ASIA = [Japan], EUROPE = [Italy, Germany]}`

C. `{EUROPE = [Germany, Italy], ASIA = [Japan]}`

D. `{EUROPE = [Germany], EUROPE = [Italy], ASIA = [Japan]}`

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 7
Given the code fragment:

```
Map<Integer, String> books = new TreeMap<>();
books.put (1007, “A”);
books.put (1002, “C”);
books.put (1001, “B”);
books.put (1003, “B”);
System.out.println (books);
```

What is the result?

A. {1007 = A, 1002 = C, 1001 = B, 1003 = B}

B. {1001 = B, 1002 = C, 1003 = B, 1007 = A}

C. {1002 = C, 1003 = B, 1007 = A}

D. {1007 = A, 1001 = B, 1003 = B, 1002 = C}

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Reference: TreeMap inherits SortedMap and automatically sorts the element's key

QUESTION 8
Given:

```
class Book {
    int id;
    String name;
    public Book (int id, String name)  {
        this.id = id;
        this.name = name;
    }
    public boolean equals (Object obj) {           //line n1
        boolean output = false;
        Book b = (Book) obj;
        if (this.name.equals(b name))}
            output = true;
        }
        return output;
    }
}
```

and the code fragment:

```
Book b1 = new Book (101, “Java Programing”);
Book b2 = new Book (102, “Java Programing”);
System.out.println (b1.equals(b2));                 //line n2
```

Which statement is true?

A. The program prints `true`.

B. The program prints `false`.

C. A compilation error occurs. To ensure successful compilation, replace `line n1` with:
```
boolean equals (Book obj)  {
```

D. A compilation error occurs. To ensure successful compilation, replace `line n2` with:
```
System.out.println (b1.equals((Object) b2));
```

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 9
Given the content of `/resourses/Message.properties`:

```
welcome1=”Good day!”
```

and given the code fragment:

```
Properties prop = new Properties ();
FileInputStream fis = new FileInputStream (“/resources/Message.properties”);
prop.load(fis);
System.out.println(prop.getProperty(“welcome1”));
System.out.println(prop.getProperty(“welcome2”, “Test”));//line n1
System.out.println(prop.getProperty(“welcome3”));
```

What is the result?

A. `Good day!`
`Test`
followed by an `Exception` stack trace

B. `Good day!`
   followed by an `Exception` stack trace

C.
```
Good day!
  Test
  null
```

D. A compilation error occurs at `line n1`.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 10
Which action can be used to load a database driver by using JDBC3.0?

A. Add the driver class to the META-INF/services folder of the JAR file.
B. Include the JDBC driver class in a `jdbc.properties` file.
C. Use the `java.lang.Class.forName` method to load the driver class.
D. Use the `DriverManager.getDriver` method to load the driver class.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 11
Given the code fragment:

```
Path p1 = Paths.get(“/Pics/MyPic.jpeg”);
System.out.println (p1.getNameCount() +
            “:” + p1.getName(1) +
            “:” + p1.getFileName());
```

Assume that the `Pics` directory does NOT exist.
What is the result?

A. An exception is thrown at run time.
B. `2:MyPic.jpeg: MyPic.jpeg`
C. `1:Pics:/Pics/ MyPic.jpeg`
D. `2:Pics: MyPic.jpeg`

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 12
Given the code fragments:

```
class MyThread implements Runnable {
    private static AtomicInteger count = new AtomicInteger (0);
    public void run ()   {
        int x = count.incrementAndGet();
        System.out.print (x+” “);
    }
}
```

and

```
Thread thread1 = new Thread(new MyThread());
Thread thread2 = new Thread(new MyThread());
Thread thread3 = new Thread(new MyThread());

Thread [] ta = {thread1, thread2, thread3};
for (int x= 0; x < 3; x++)   {
    ta[x].start();
}
```

Which statement is true?

A. The program prints 1 2 3 and the order is unpredictable.
B. The program prints 1 2 3.
C. The program prints 1 1 1.
D. A compilation error occurs.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 13
Given:

```
public enum USCurrency   {
    PENNY (1),
    NICKLE(5),
    DIME (10),
    QUARTER(25);

    private int value;

    public USCurrency(int value)   {
        this.value = value;
    }
    public int getValue()    {return value;}
}
public class Coin {
    public static void main (String[] args)   {
        USCurrency usCoin =new USCurrency.DIME;
        System.out.println(usCoin.getValue()):
    }
}
```

Which two modifications enable the given code to compile? (Choose two.)

A. Nest the `USCurrency` enumeration declaration within the `Coin` class.
B. Make the `USCurrency` enumeration constructor `private`.
C. Remove the `new` keyword from the instantion of `usCoin`.
D. Make the getter method of `value` as a `static` method.
E. Add the `final` keyword in the declaration of `value`.

Correct Answer: BC
Section: (none)
Explanation

Explanation/Reference:

QUESTION 14
Given:

```
class ImageScanner implements AutoCloseable {
    public void close () throws Exception {
        System.out.print (“Scanner closed.”);
    }
    public void scanImage () throws Exception {
        System.out.print (“Scan.”);
        throw new Exception(“Unable to scan.”);
    }
}
class ImagePrinter implements AutoCloseable {
    public void close () throws Exception {
        System.out.print (“Printer closed.”);
    }
    public void printImage ()  {System.out.print(“Print.”);    }
}
```

and this code fragment:

```
try (ImageScanner ir = new ImageScanner();
        ImagePrinter iw = new ImagePrinter())   {
    ir.scanImage();
    iw.printImage();
}  catch (Exception e)  {
    System.out.print(e.getMessage());
}
```

What is the result?

A. `Scan.Printer closed. Scanner closed. Unable to scan.`
B. `Scan.Scanner closed. Unable to scan.`
C. `Scan. Unable to scan.`
D. `Scan. Unable to scan. Printer closed.`

Correct Answer: A
Section: (none)

Explanation

Explanation/Reference:

QUESTION 15
Given the structure of the STUDENT table:

```
Student (id INTEGER, name VARCHAR)
```

Given:

```
public class Test   {
    static Connection newConnection =null;
    public static Connection get DBConnection () throws SQLException {
        try (Connection con = DriveManager.getConnection(URL, username, password))   {
            newConnection = con;
        }
        return newConnection;
    }
    public static void main (String [] args) throws SQLException {
        get DBConnection ();
        Statement st = newConnection.createStatement();
        st.executeUpdate("INSERT INTO student VALUES (102, 'Kelvin')");
    }
}
```

Assume that:
 The required database driver is configured in the classpath.
 The appropriate database is accessible with the URL, userName, and passWord exists.
 The SQL query is valid.

What is the result?

A. The program executes successfully and the STUDENT table is updated with one record.
B. The program executes successfully and the STUDENT table is NOT updated with any record.
C. A `SQLException` is thrown as runtime.
D. A `NullPointerException` is thrown as runtime.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 16

Given the code fragments:

```
class Employee  {
    Optional<Address> address;
    Employee (Optional<Address> address)   {
        this.address = address;
    }
    public  Optional<Address> getAddress()   {   return address;   }
}

class Address   {
    String city = “New York”;
    public String getCity  {   return city:   }
    public String toString()    {
        return city;
    }
}
```

and

```
Address address = null;
Optional<Address> addrs1 = Optional.ofNullable (address);
Employee e1 = new Employee (addrs1);
String eAddress = (addrs1.isPresent()) ? addrs1.get().getCity() : “City Not
available”;
```

What is the result?

A. New York

B. City Not available

C. null

D. A NoSuchElementException is thrown at run time.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 17
Given the code fragment:

```
Stream<Path> files = Files.walk(Paths.get(System.getProperty(“user.home”)));
    files.forEach (fName -> {                    //line n1
        try {
            Path aPath = fName.toAbsolutePath();    //line n2
            System.out.println(fName + “:”
                + Files.readAttributes(aPath, Basic.File.Attributes.class).creationTime
());
        } catch (IOException ex) {
            ex.printStackTrace();

    });
```

What is the result?

A. All files and directories under the home directory are listed along with their attributes.
B. A compilation error occurs at `line n1`.
C. The files in the home directory are listed along with their attributes.
D. A compilation error occurs at `line n2`.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 18
Given that course.txt is accessible and contains:

```
Course : : Java
```

and given the code fragment:

```
public static void main (String[ ] args)    {
    int i;
    char c;
    try (FileInputStream fis = new FileInputStream (“course.txt”);
        InputStreamReader isr = new InputStreamReader(fis);) {
        while (isr.ready())   {   //line n1
            isr.skip(2);
            i = isr.read ();
            c = (char) i;
            System.out.print(c);
        }
    } catch (Exception e)   {
        e.printStackTrace();
    }
}
```

What is the result?

A. `ur :: va`

B. `ueJa`

C. The program prints nothing.

D. A compilation error occurs at `line n1`.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 19
Given:

```
public class Test<T>    {
    private T t;
    public T get ()  {
        return t;
    }
    public void set (T t)    {
        this.t = t;
    }
    public static void main (String args [ ] )    {
        Test<String> type = new Test<>();
        Test type 1 = new Test ();            //line n1
        type.set(“Java”);
        type1.set(100);                //line n2
        System.out.print(type.get() + “ “ + type1.get());
    }
}
```

What is the result?

A. Java 100

B. java.lang.string@<*hashcode*>java.lang.Integer@<hashcode>

C. A compilation error occurs. To rectify it, replace `line n1` with:
   `Test<Integer> type1 = new Test<>();`

D. A compilation error occurs. To rectify it, replace `line n2` with:
   `type1.set (Integer(100));`

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 20
Given the definition of the Vehicle class:

```
class Vehicle   {
    String name;
        void setName (String name)   {
            this.name = name;
    }
    String getName()   {
        return name;
    }
}
```

Which action encapsulates the Vehicle class?

A. Make the `Vehicle` class `public`.
B. Make the `name` variable `public`.
C. Make the `setName` method `public`.
D. Make the `name` variable `private`.
E. Make the `setName` method `private`.
F. Make the `getName` method `private`.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 21
Given:

```
public class product   {
    int id; int price;
    public Product (int id, int price)   {
        this.id = id;
        this.price = price;
    }
    public String toString()  {   return id + “:” + price;   }
}
```

and the code fragment:

```
List<Product> products = Arrays.asList(new Product(1, 10),
    new Product (2, 30),
    new Product (2, 30));
Product p = products.stream().reduce(new Product (4, 0), (p1,  p2) -> {
    p1.price+=p2.price;
    return new Product (p1.id, p1.price);});
products.add(p);
products.stream().parallel()
    .reduce((p1, p2) - > p1.price > p2.price ? p1 : p2)
    .ifPresent(System.out: :println);
```

What is the result?

A. `2 : 30`

B. `4 : 0`

C. `4 : 60`

D.
```
4 : 60
2 : 30
3 : 20
1 : 10
```

E. The program prints nothing.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 22
Given the code fragments:

```
public class Book implements Comparator<Book>  {
    String name;
    double price;
    public Book ()   {}
    public Book(String name, double price)    {
        this.name = name;
        this.price = price;
    }
    public int compare(Book b1, Book b2)    {
        return b1.name.compareTo(b2.name);
    }
    public String toString()   {
        return name + “:” + price;
    }
}
```

and

```
List<Book>books = Arrays.asList (new Book (“Beginning with Java”, 2), new book (“A
Guide to Java Tour”, 3));
    Collections.sort(books, new Book());
    System.out.print(books);
```

What is the result?

A. `[A Guide to Java Tour:3.0, Beginning with Java:2.0]`
B. `[Beginning with Java:2, A Guide to Java Tour:3]`
C. A compilation error occurs because the Book class does not override the abstract method `compareTo`().
D. An `Exception` is thrown at run time.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 23
Given the code fragment:

```
List<String> listVal = Arrays.asList(“Joe”, “Paul”, “Alice”, “Tom”);
System.out.println (
    // line n1
);
```

Which code fragment, when inserted at line n1, enables the code to print the count of string elements whose length is greater than three?

A. `listVal.stream().filter(x -> x.length()>3).count()`
B. `listVal.stream().map(x -> x.length()>3).count()`
C. `listVal.stream().peek(x -> x.length()>3).count().get()`
D. `listVal.stream().filter(x -> x.length()>3).mapToInt(x -> x).count()`

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 24
Given the code fragments:

```
class Caller implements Callable<String>     {
    String str;
    public Caller (String s) {this.str=s;}
    public String call()throws Exception { return str.concat ("Caller");}
}
class Runner implements Runnable   {
String str;
    public Runner (String s) {this.str=s;}
    public void run () { System.out.println (str.concat ("Runner"));}
}
```

and

```
public static void main (String[] args) InterruptedException, ExecutionException   {
    ExecutorService es = Executors.newFixedThreadPool(2);
    Future f1 = es.submit (new Caller ("Call"));
    Future f2 = es.submit (new Runner ("Run"));
    String str1 = (String) f1.get();
    String str2 = (String) f2.get();        //line n1
    System.out.println(str1+ ":" + str2);
}
```

What is the result?

A. The program prints:
   `Run Runner`
   `Call Caller : null`
   And the program does not terminate.

B. The program terminates after printing:
   `Run Runner`
   `Call Caller : Run`

C. A compilation error occurs at `line n1`.

D. An `Execution` is thrown at run time.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 25

Given:

```
public class Canvas implements Drawable {
    public void draw ()   { }
}

public abstract class Board extends Canvas {  }

public class Paper extends Canvas {
    protected void draw (int color)   {   }
}
public class Frame extends Canvas implements Drawable {
    public void resize ()   { }
}
public  interface Drawable {
    public abstract void draw ();
}
```

Which statement is true?

A. `Board` does not compile.

B. `Paper` does not compile.

C. `Frame` does not compile.

D. `Drawable` does not compile.

E. All classes compile successfully.

Correct Answer: E
Section: (none)
Explanation

Explanation/Reference:

QUESTION 26
Given the code fragment:

```
List<String> str = Arrays.asList (“my”, “pen”, “is”, “your’, “pen”);
Predicate<String> test = s -> {
    int i = 0;
    boolean result = s.contains (“pen”);
    System.out.print(i++) + “:”);
    return result;
};
str.stream()
        .filter(test)
        .findFirst()
        .ifPresent(System.out ::print);
```

What is the result?

A. `0 : 0 : pen`

B. `0 : 1 : pen`

C. `0 : 0 : 0 : 0 : 0 : pen`

D. `0 : 1 : 2 : 3 : 4 :`

E. A compilation error occurs.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 27

Given the code fragment:

```
List<String> empDetails = Arrays.asList(“100, Robin, HR”,
                                    “200, Mary, AdminServices”,
                                    “101, Peter, HR”);
empDetails.stream()
    .filter(s-> s.contains(“1”))
    .sorted()
    .forEach(System.out::println); //line n1
```

What is the result?

A.
```
100, Robin, HR
101, Peter, HR
```

B. A compilation error occurs at `line n1`.

C.
```
100, Robin, HR
101, Peter, HR
200, Mary, AdminServices
```

D.
```
100, Robin, HR
200, Mary, AdminServices
101, Peter, HR
```

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 28
Which two statements are true about localizing an application? (Choose two.)

A. Support for new regional languages does not require recompilation of the code.
B. Textual elements (messages and GUI labels) are hard-coded in the code.
C. Language and region-specific programs are created using localized data.
D. Resource bundle files include data and currency information.
E. Language codes use lowercase letters and region codes use uppercase letters.

Correct Answer: AE
Section: (none)
Explanation

Explanation/Reference:
Reference: http://docs.oracle.com/javase/7/docs/technotes/guides/intl/

QUESTION 29
Which statement is true about `java.util.stream.Stream`?

A. A stream cannot be consumed more than once.
B. The execution mode of streams can be changed during processing.
C. Streams are intended to modify the source data.
D. A parallel stream is always faster than an equivalent sequential stream.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 30

The data.doc, data.txt and data.xml files are accessible and contain text.
Given the code fragment:

```
Stream<Path> paths = Stream.of (Paths. get(“data.doc”),
  Paths. get(“data.txt”),
  Paths. get(“data.xml”));
paths.filter(s-> s.toString().endWith(“txt”)).forEach(
    s -> {
        try {
            Files.readAllLines(s)
                .stream()
                .forEach(System.out::println); //line n1
        } catch (IOException e) {
            System.out.println(“Exception”);
        }
    }
);
```

What is the result?

A. The program prints the content of `data.txt` file.

B. The program prints:

```
Exception
<<The content of the data.txt file>>
Exception
```

C. A compilation error occurs at `line n1`.

D. The program prints the content of the three files.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 31

Given:

```
final class Folder {        //line n1
    //line n2
    public void open () {
        System.out.print(“Open”);
    }
}
public class Test {
    public static void main (String [] args) throws Exception   {
        try (Folder f = new Folder())   {
            f.open();
        }
    }
}
```

Which two modifications enable the code to print `Open Close`? (Choose two.)

A. Replace `line n1` with:
```
class Folder implements AutoCloseable {
```
B. Replace `line n1` with:
```
class Folder extends Closeable {
```
C. Replace `line n1` with:
```
class Folder extends Exception {
```
D. At line n2, insert:
```
final void close ()   {
     System.out.print(“Close”);
}
```
E. At line n2, insert:
```
public void close () throws IOException {
     System.out.print(“Close”);
}
```

Correct Answer: AE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 32
You want to create a singleton class by using the Singleton design pattern.

Which two statements enforce the singleton nature of the design? (Choose two.)

A. Make the class `static`.
B. Make the constructor `private`.
C. Override `equals`() and `hashCode`() methods of the java.lang.Object class.
D. Use a `static` reference to point to the single instance.
E. Implement the `Serializable` interface.

Correct Answer: BD
Section: (none)
Explanation

Explanation/Reference:

QUESTION 33
Given the code fragment:

```
List<Integer> codes = Arrays.asList (10, 20);
UnaryOperator<Double> uo = s -> s +10.0;
codes.replaceAll(uo);
codes.forEach(c -> System.out.println(c));
```

What is the result?

A. 20.0
30.0
B. 10
20
C. A compilation error occurs.
D. A `NumberFormatException` is thrown at run time.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 34
Given:

```
public class Customer   {
    private String fName;
    private String lName;
    private static int count;
    public customer (String first, String last) {fName = first, lName = last;
    ++count;}
    static  {  count = 0;  }
    public static int getCount()  {return count; }
}

public class App   {
    public static void main (String [] args)   {
        Customer c1 = new Customer(“Larry”, “Smith”);
        Customer c2 = new Customer(“Pedro”, “Gonzales”);
        Customer c3 = new Customer(“Penny”, “Jones”);
        Customer c4 = new Customer(“Lars”, “Svenson”);
        c4 = null;
        c3 = c2;
        System.out.println (Customer.getCount());
    }
}
```

What is the result?

A. 0
B. 2
C. 3
D. 4
E. 5

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 35
Given:

Item table

- ID, INTEGER: PK
- DESCRIP, VARCHAR(100)
- PRICE, REAL
- QUANTITY< INTEGER

And given the code fragment:

```
try {
    Connection conn = DriveManager.getConnection(dbURL, username, password);
     String query = “Select * FROM Item WHERE ID = 110”;
     Statement stmt = conn.createStatement();
     ResultSet rs = stmt.executeQuery(query);
    while(rs.next())   {
        System.out.println(“ID:        “ + rs.getInt(“Id”));
        System.out.println(“Description:    “ + rs.getString(“Descrip”));
        System.out.println(“Price:        “ + rs.getDouble(“Price”));
         System.out.println(Quantity:        “ + rs.getInt(“Quantity”));
    }
} catch (SQLException se)  {
     System.out.println(“Error”);
}
```

Assume that:

The required database driver is configured in the classpath.

The appropriate database is accessible with the `dbURL`, `userName`, and `passWord` exists.

The SQL query is valid.

What is the result?

A. An exception is thrown at runtime.

B. Compilation fails.

C. The code prints `Error`.

D. The code prints information about Item 110.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 36
Given:

```
class Worker extends Thread  {
    CyclicBarrier cb;
    public Worker(CyclicBarrier cb) { this.cb = cb; }
    public void run ()  {
        try  {
            cb.await();
            System.out.println(“Worker…”);
        } catch (Exception ex)  {  }
    }
}
class Master implements Runnable {   //line n1
    public void run ()   {
        System.out.println(“Master…”);
    }
}
```

and the code fragment:

```
Master master = new Master();
//line n2
Worker worker = new Worker(cb);
worker.start();
```

You have been asked to ensure that the `run` methods of both the `Worker` and `Master` classes are executed.
Which modification meets the requirement?

A. At `line n2`, insert `CyclicBarrier cb = new CyclicBarrier(2, master);`

B. Replace `line n1` with `class Master extends Thread {`

C. At `line n2`, insert `CyclicBarrier cb = new CyclicBarrier(1, master);`

D. At `line n2`, insert `CyclicBarrier cb = new CyclicBarrier(master);`

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 37
Given the code fragment:

```
String str = “Java is a programming language”;
ToIntFunction<String> indexVal = str: : indexOf;  //line n1
int x = indexVal.applyAsInt(“Java”);        //line n2
System.out.println(x);
```

What is the result?

A. 0
B. 1
C. A compilation error occurs at `line n1`.
D. A compilation error occurs at `line n2`.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 38
Given the code fragment:

```
List<String> codes = Arrays.asList (“DOC”, “MPEG”, “JPEG”);
codes.forEach (c -> System.out.print(c + “ “));
String fmt = codes.stream()
    .filter (s-> s.contains (“PEG”))
    .reduce((s, t) -> s + t).get();
System.out.println(“\n” + fmt);
```

What is the result?

A.
```
DOC MPEG JPEG
MPEGJPEG
```
B.
```
DOC MPEG MPEGJPEG
MPEGMPEGJPEG
```
C.
```
MPEGJPEG
MPEGJPEG
```

D. The order of the output is unpredictable.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 39
Given the code fragment:

```
List<String> nL = Arrays.asList(“Jim”, “John”, “Jeff”);
Function<String, String> funVal = s -> “Hello : “.contact(s);
nL.Stream()
    .map(funVal)
    .peek(System.out::print);
```

What is the result?

A. `Hello : Jim Hello : John Hello : Jeff`
B. `Jim John Jeff`
C. The program prints nothing.
D. A compilation error occurs.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 40
Given:

```
public interface Moveable<Integer>    {
    public default void walk (Integer distance) {System.out.println(“Walking”);)
    public void run(Integer distance);
}
```

Which statement is true?

A. `Moveable` can be used as below:
```
Moveable<Integer> animal = n - > System.out.println(“Running” + n);
animal.run(100);
animal.walk(20);
```
B. `Moveable` can be used as below:
```
Moveable<Integer> animal = n - > n + 10;
animal.run(100);
animal.walk(20);
```
C. `Moveable` can be used as below:
```
Moveable animal = (Integer n)  - > System.out.println(n);
animal.run(100);
Moveable.walk(20);
```
D. `Movable` cannot be used in a lambda expression.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 41
Which two code blocks correctly initialize a Locale variable? (Choose two.)

A. `Locale loc1 = "UK";`
B. `Locale loc2 = Locale.getInstance("ru");`
C. `Locale loc3 = Locale.getLocaleFactory("RU");`
D. `Locale loc4 = Locale.UK;`
E. `Locale loc5 = new Locale ("ru", "RU");`

Correct Answer: DE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 42
Given:

```
class FuelNotAvailException extends Exception {   }
class Vehicle   {
    void ride() throws FuelNotAvailException  {    //line n1
        System.out.println(“Happy Journey!”);
    }
}
class SolarVehicle extends Vehicle   {
    public void ride () throws Exception   {        //line n2
        super ride ();
  }
}
```

and the code fragment:

```
public static void main (String[] args) throws FuelNotAvailException, Exception   {
    Vehicle v = new SolarVehicle ();
    v.ride();
}
```

Which modification enables the code fragment to print `Happy Journey!`?

A. Replace `line n1` with `public void ride() throws FuelNotAvailException   {`
B. Replace `line n1` with `protected void ride() throws Exception   {`
C. Replace `line n2` with `void ride() throws Exception   {`
D. Replace `line n2` with `private void ride() throws FuelNotAvailException   {`

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 43
Given the definition of the `Emp` class:

```
public class Emp
    private String eName;
    private Integer eAge;

    Emp(String eN, Integer eA)    {
        this.eName = eN;
        this.eAge = eA;
    }
    public Integer getEAge () {return eAge;}
    public String getEName () {return eName;}
}
```

and code fragment:

```
List<Emp>li = Arrays.asList(new Emp(“Sam”, 20), New Emp(“John”, 60), New Emp(“Jim”, 51));
Predicate<Emp> agVal = s -> s.getEAge() > 50;            //line n1
li = li.stream().filter(agVal).collect(Collectors.toList());
Stream<String> names = li.stream()map.(Emp::getEName);    //line n2
names.forEach(n -> System.out.print(n + “ “));
```

What is the result?

A. `Sam John Jim`

B. `John Jim`

C. A compilation error occurs at `line n1`.

D. A compilation error occurs at `line n2`.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 44
For which three objects must a vendor provide implementations in its JDBC driver? (Choose three.)

A. `Time`

B. `Date`

C. `Statement`

D. `ResultSet`

E. `Connection`

F. `SQLException`

G. `DriverManager`

Correct Answer: CDE
Section: (none)
Explanation

Explanation/Reference:
Explanation:
Database vendors support JDBC through the JDBC driver interface or through the ODBC connection. Each driver must provide implementations of java.sql.Connection, java.sql.Statement, java.sql.PreparedStatement, java.sql.CallableStatement, and java.sql.Re sultSet. They must also implement the java.sql.Driver interface for use by the generic java.sql.DriverManager interface.

QUESTION 45
Given the code fragment:

```
LocalDate valentinesDay =LocalDate.of(2015, Month.FEBRUARY, 14);
LocalDate nextYear = valentinesDay.plusYears(1);
nextYear.plusDays(15); //line n1
System.out.println(nextYear);
```

What is the result?

A. 2016-02-14
B. A `DateTimeException` is thrown.
C. 2016-02-29
D. A compilation error occurs at `line n1`.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 46
Given:

```
interface Doable {
    public void doSomething (String s);
}
```

Which two class definitions compile? (Choose two.)

A.
```
public abstract class Task implements Doable {
  public void doSomethingElse(String s)    {  }
}
```

B.
```
public abstract class Work implements Doable {
  public abstract void doSomething(String s)    {  }
  public void doYourThing(Boolean b)    {  }
}
```

C.
```
public class Job implements Doable {
  public void doSomething(Integer i)    {  }
}
```

D.
```
public class Action implements Doable {
  public void doSomething(Integer i)    {  }
  public String doThis(Integer j)    {  }
}
```

E.
```
public class Do implements Doable {
  public void doSomething(Integer i)    {  }
  public void doSomething(String s)    {  }
  public void doThat (String s)    {  }
}
```

Correct Answer: AE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 47
Given the code fragment:

```
List<Integer> list1 = Arrays.asList(10, 20);
List<Integer> list2 = Arrays.asList(15, 30);
//line n1
```

Which code fragment, when inserted at line n1, prints 10 20 15 30?

A.
```
Stream.of(list1, list2)
        .flatMap(list -> list.stream())
        .forEach(s -> System.out.print(s + “ “));
```

B.
```
Stream.of(list1, list2)
```

```
        .flatMap(list -> list.intStream())
        .forEach(s -> System.out.print(s + “ “));
```

C.
```
list1.stream()
        .flatMap(list2.stream().flatMap(e1 -> e1.stream())
        .forEach(s -> System.out.println(s + “ “));
```

D.
```
Stream.of(list1, list2)
        .flatMapToInt(list -> list.stream())
        .forEach(s -> System.out.print(s + “ “));
```

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 48
Given:

```
Book.java:
public class Book   {
    private String read(String bname)    {  return “Read” + bname   }
}
EBook.java:
public class EBook extends Book   {
    public class String read (String url)     {  return “View” + url   }
}

Test.java:
public class Test  {
    public static void main (String[] args)   {
         Book b1 = new Book();
         b1.read(“Java Programing”);
         Book b2 = new EBook();
         b2.read(“http://ebook.com/ebook”);
    }
}
```

What is the result?

A.
```
Read Java Programming
View http:/ ebook.com/ebook
```

B. `Read Java Programming`
   `Read http:/ ebook.com/ebook`

C. The `EBook.java` file fails to compile.

D. The `Test.java` file fails to compile.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 49
Given the code fragment:

```
ZonedDateTime depart = ZonedDateTime.of(2015, 1, 15, 3, 0, 0, 0, ZoneID.of(“UTC-7”));
ZonedDateTime arrive = ZonedDateTime.of(2015, 1, 15, 9, 0, 0, 0, ZoneID.of(“UTC-5”));
long hrs = ChronoUnit.HOURS.between(depart, arrive); //line n1
System.out.println(“Travel time is” + hrs + “hours”);
```

What is the result?

A. `Travel time is 4 hours`

B. `Travel time is 6 hours`

C. `Travel time is 8 hours`

D. An exception is thrown at `line n1`.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 50
Given the code fragment:

```
Path path1 = Paths.get(“/app/./sys/”);
Path res1 = path1.resolve(“log”);
Path path2 = Paths.get(“/server/exe/”);
Path res1 = path1.resolve(“/readme/”);
System.out.println(res1);
System.out.println(res2);
```

What is the result?

A. `/app/sys/log`
`/readme/server/exe`

B. `/app/log/sys`
`/server/exe/readme`

C. `/app/./sys/log`
`/readme`

D. `/app/./sys/log`
`/server/exe/readme`

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 51
Given the code fragment:

```
List<String> colors = Arrays.asList(“red”, “green”, “yellow”);
Predicate<String> test = n - > {
    System.out.println(“Searching…”);
    return n.contains(“red”);
};
colors.stream()
    .filter(c -> c.length() > 3)
    .allMatch(test);
```

What is the result?

A. `Searching...`

B. `Searching...`
`Searching...`

C. `Searching...`
`Searching...`

```
Searching...
```

D. A compilation error occurs.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 52
Given:

```
class UserException extends Exception    {  }
class AgeOutOfLimitException extends UserException    {  }
```

and the code fragment:

```
class App  {
    public void doRegister(String name, int age)
        throws UserException, AgeOutOfLimitException  {
        if (name.length () < 6)  {
            throw new UserException ();
        } else if (age >= 60)   {
            throw new AgeOutOfLimitException ();
        } else {
            System.out.println(“User is registered.”);
        }
    }
    public static void main(String[ ] args) throws UserException  {

        App t = new App ();
        t.doRegister(“Mathew”, 60);
    }
}
```

What is the result?

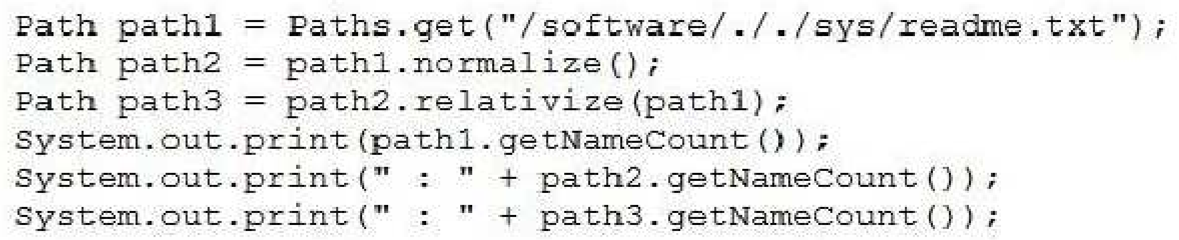
A. `User is registered.`
B. An `AgeOutOfLimitException` is thrown.
C. A `UserException` is thrown.

D. A compilation error occurs in the `main` method.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 53
Given the code fragment:



```
Path path1 = Paths.get("/software/././sys/readme.txt");
Path path2 = path1.normalize();
Path path3 = path2.relativize(path1);
System.out.print(path1.getNameCount());
System.out.print(" : " + path2.getNameCount());
System.out.print(" : " + path3.getNameCount());
```

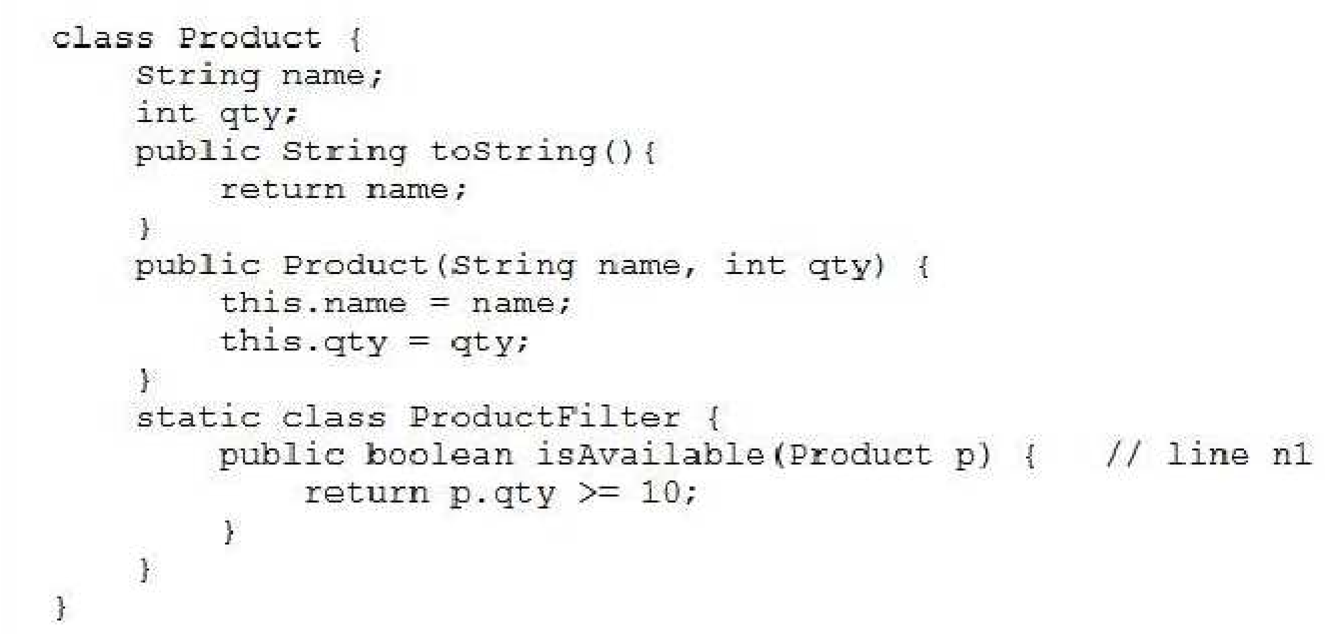
What is the result?

A. 5 : 3 : 6
B. 6 : 5 : 6
C. 3 : 3 : 4
D. 4 : 4 : 4

Correct Answer: D
Section: (none)
Explanation

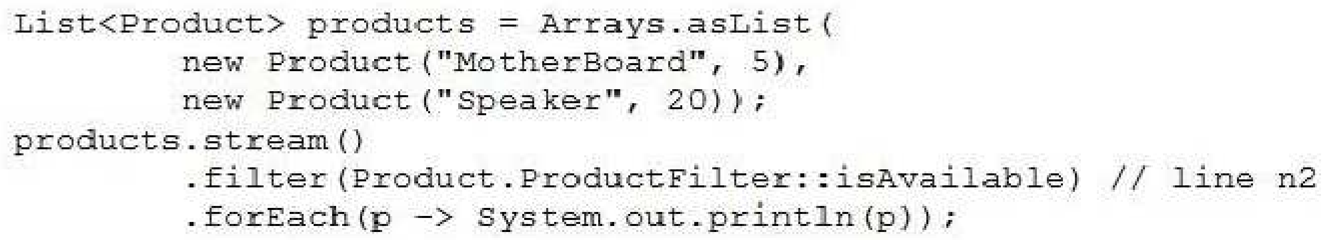
Explanation/Reference:

QUESTION 54
Given:



```
class Product {
    String name;
    int qty;
    public String toString(){
        return name;
    }
    public Product(String name, int qty) {
        this.name = name;
        this.qty = qty;
    }
    static class ProductFilter {
        public boolean isAvailable(Product p) {    // line n1
            return p.qty >= 10;
        }
    }
}
```

and the code fragment:



```
List<Product> products = Arrays.asList(
        new Product("MotherBoard", 5),
        new Product("Speaker", 20));
products.stream()
        .filter(Product.ProductFilter::isAvailable) // line n2
        .forEach(p -> System.out.println(p));
```

Which modification enables the code fragment to print `Speaker`?

A. Implement `Predicate` in the `Product.ProductFilter` class and replace `line n2` with `.filter (p -> p.ProductFilter.test (p))`

B. Replace `line n1` with:
`public static boolean isAvailable (Product p) {`

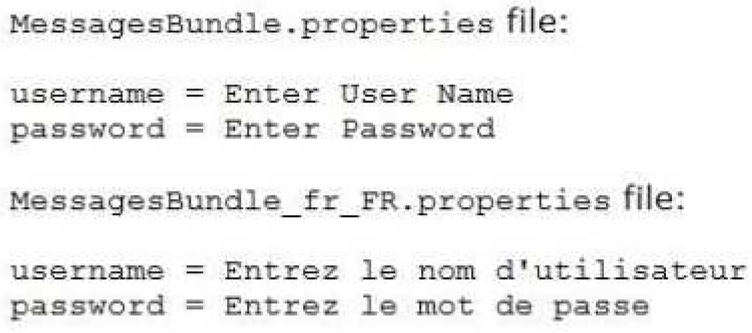
C. Replace `line n2` with:
`.filter (p -> p.ProductFilter: :isAvailable (p))`

D. Replace `line n2` with:
`.filter (p -> Product: :ProductFilter: :isAvailable ())`

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 55
Given the content:



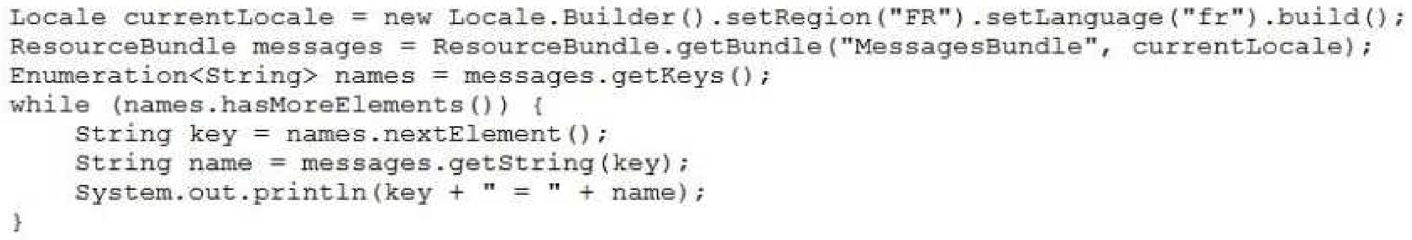
`MessagesBundle.properties` file:

```
username = Enter User Name
password = Enter Password
```

`MessagesBundle_fr_FR.properties` file:

```
username = Entrez le nom d'utilisateur
password = Entrez le mot de passe
```

and the code fragment:



```
Locale currentLocale = new Locale.Builder().setRegion("FR").setLanguage("fr").build();
ResourceBundle messages = ResourceBundle.getBundle("MessagesBundle", currentLocale);
Enumeration<String> names = messages.getKeys();
while (names.hasMoreElements()) {
    String key = names.nextElement();
    String name = messages.getString(key);
    System.out.println(key + " = " + name);
}
```

What is the result?

A.
```
username = Entrez le nom d’utilisateur
password = Entrez le mot de passe
```

B.
```
username = Enter User Name
password = Enter Password
```

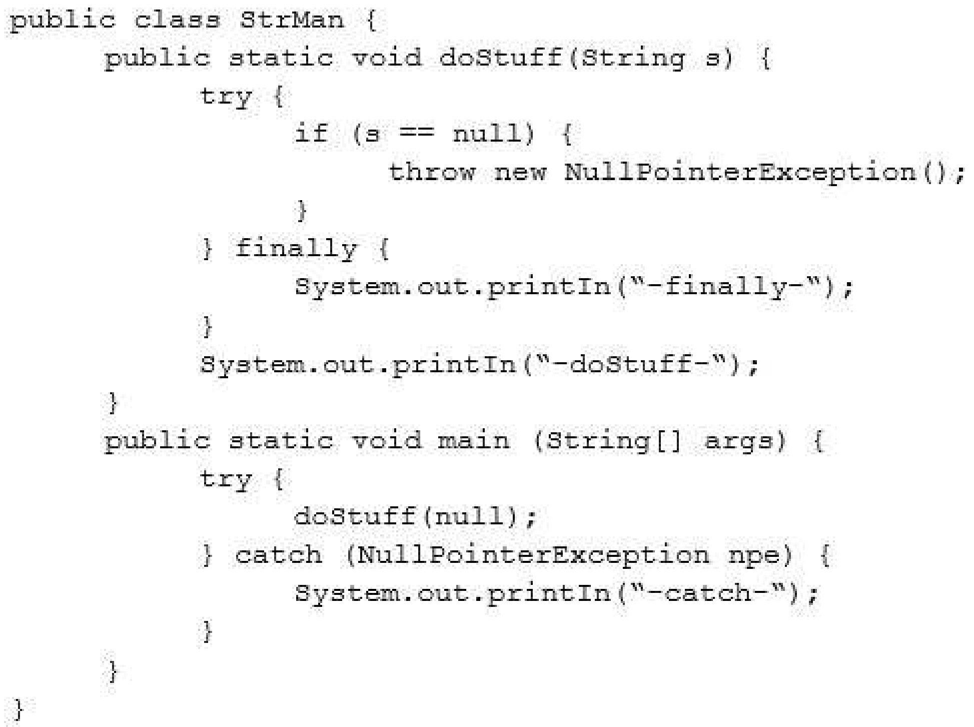
C. A compilation error occurs.

D. The program prints nothing.

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 56
Given:



```
public class StrMan {
      public static void doStuff(String s) {
            try {
                  if (s == null) {
                        throw new NullPointerException();
                  }
            } finally {
                  System.out.printIn("-finally-");
            }
            System.out.printIn("-doStuff-");
      }
      public static void main (String[] args) {
            try {
                  doStuff(null);
            } catch (NullPointerException npe) {
                  System.out.printIn("-catch-");
            }
      }
}
```

What is the result?

A. –catch-
-finally-
-dostuff-

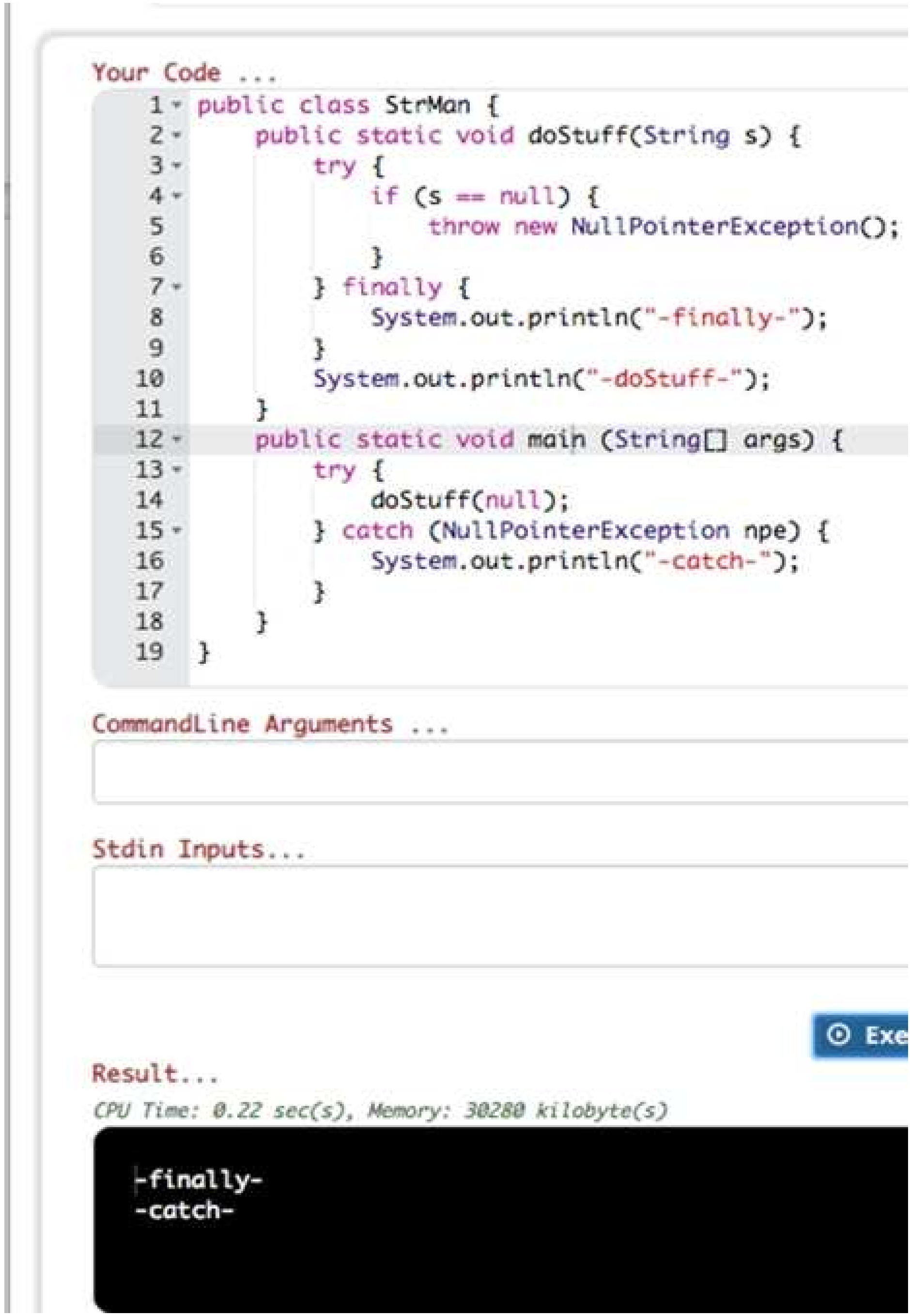
B. –catch-

C. –finally-
-catch-

D. –finally
-dostuff-
-catch-

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:



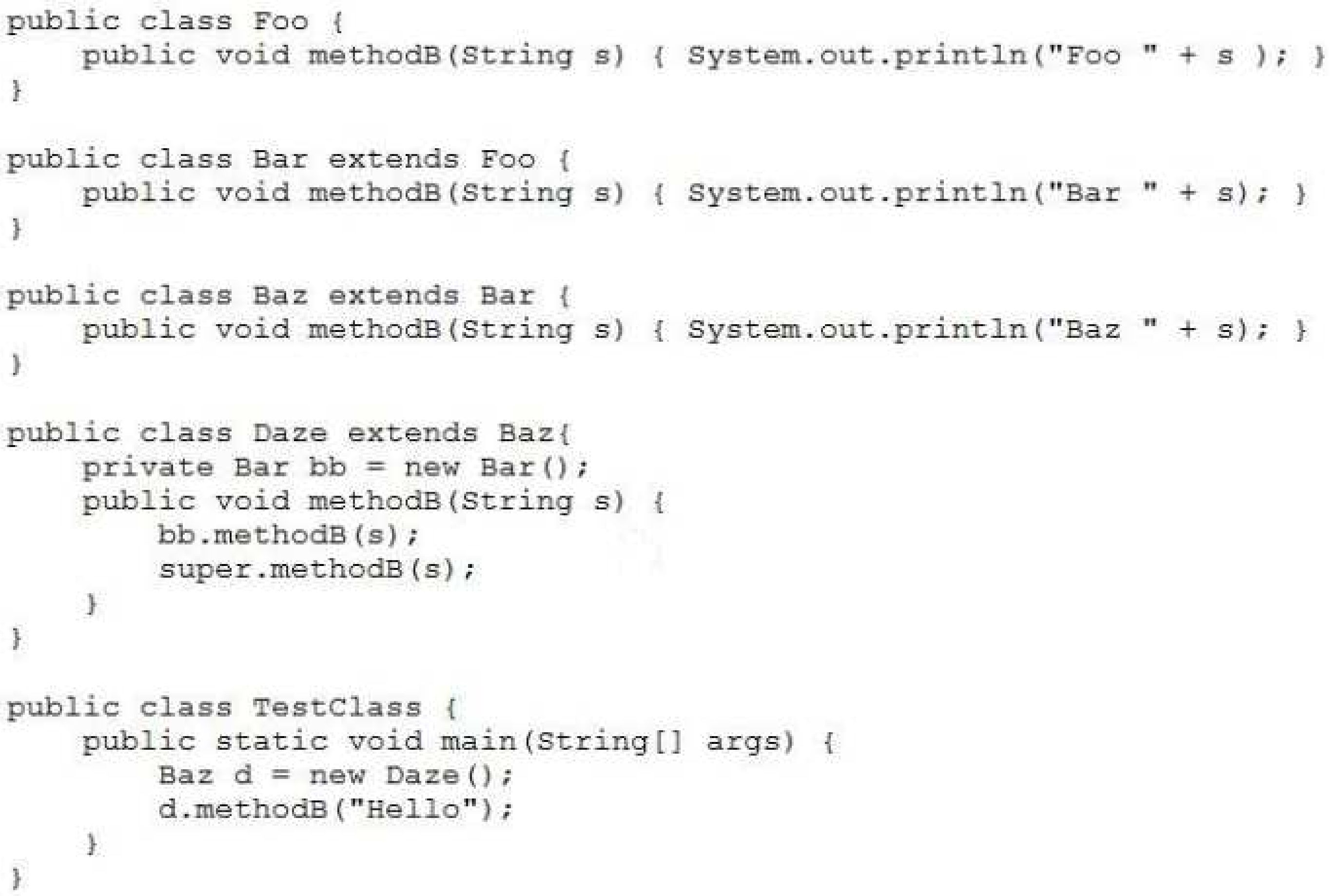
```java
public class StrMan {
    public static void doStuff(String s) {
        try {
            if (s == null) {
                throw new NullPointerException();
            }
        } finally {
            System.out.println("-finally-");
        }
        System.out.println("-doStuff-");
    }
    public static void main (String[] args) {
        try {
            doStuff(null);
        } catch (NullPointerException npe) {
            System.out.println("-catch-");
        }
    }
}
```

CPU Time: 0.22 sec(s), Memory: 30280 kilobyte(s)

```
-finally-
-catch-
```

QUESTION 57

Given:



```
public class Foo {
    public void methodB(String s) { System.out.println("Foo " + s ); }
}

public class Bar extends Foo {
    public void methodB(String s) { System.out.println("Bar " + s); }
}

public class Baz extends Bar {
    public void methodB(String s) { System.out.println("Baz " + s); }
}

public class Daze extends Baz{
    private Bar bb = new Bar();
    public void methodB(String s) {
        bb.methodB(s);
        super.methodB(s);
    }
}

public class TestClass {
    public static void main(String[] args) {
        Baz d = new Daze();
        d.methodB("Hello");
    }
}
```

What is the result?

A. `Bar Hello`
   `Foo Hello`

B. `Bar Hello`
   `Baz Hello`

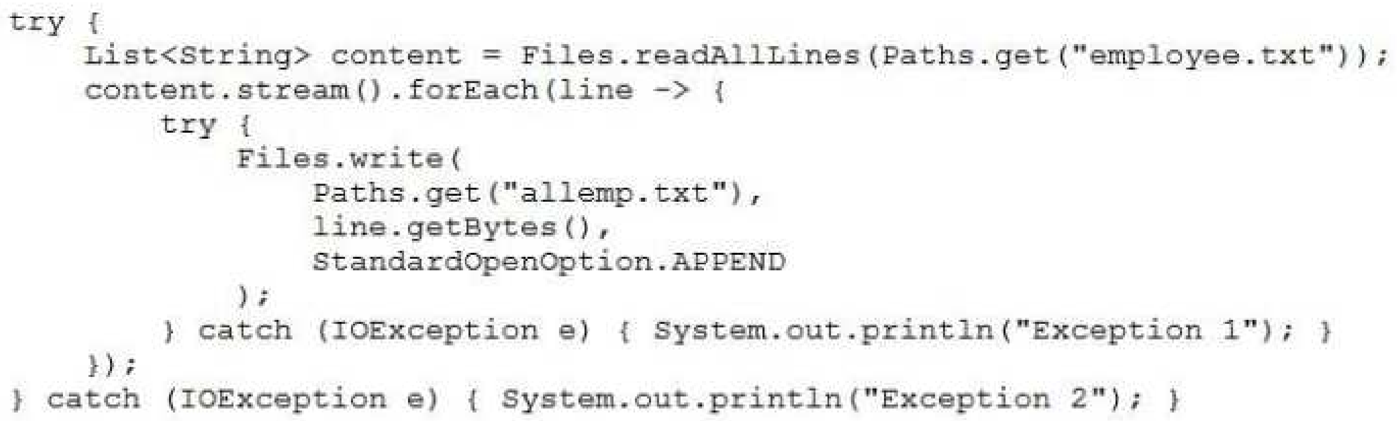
C. `Baz Hello`

D. A compilation error occurs in the `Daze` class.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 58
Given the content of the `employee.txt` file:
Every worker is a master.
Given that the `employee.txt` file is accessible and the file `allemp.txt` does NOT exist, and the code fragment:



```
try {
    List<String> content = Files.readAllLines(Paths.get("employee.txt"));
    content.stream().forEach(line -> {
        try {
            Files.write(
                Paths.get("allemp.txt"),
                line.getBytes(),
                StandardOpenOption.APPEND
            );
        } catch (IOException e) { System.out.println("Exception 1"); }
    });
} catch (IOException e) { System.out.println("Exception 2"); }
```

What is the result?

A. `Exception 1`

B. `Exception 2`

C. The program executes, does NOT affect the system, and produces NO output.

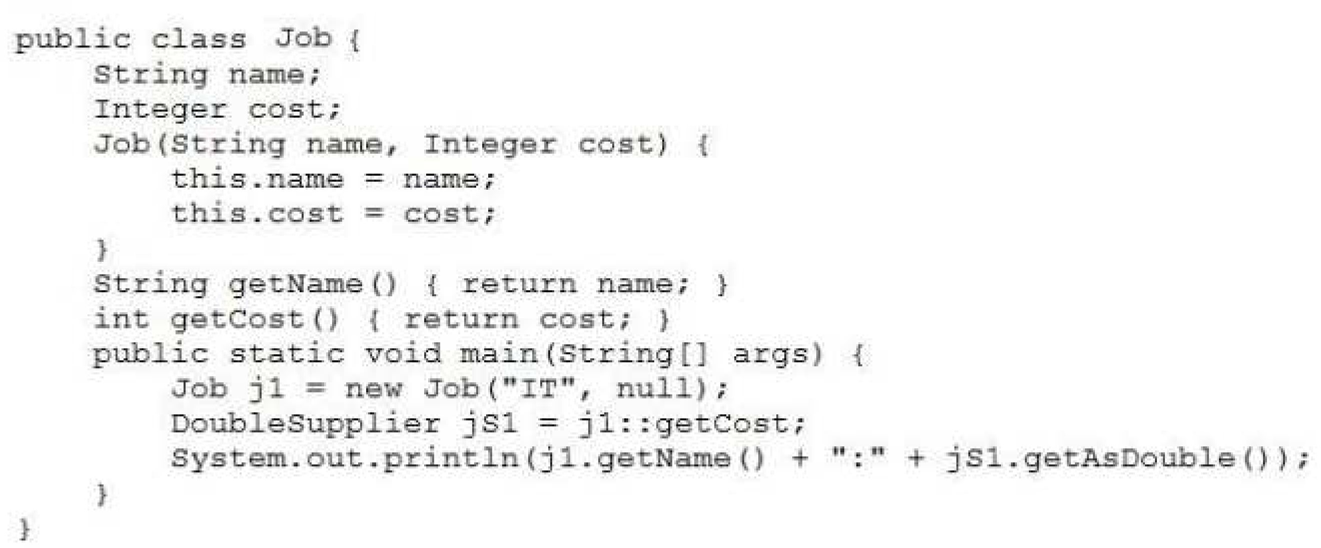
D. `allemp.txt` is created and the content of `employee.txt` is copied to it.

Correct Answer: A
Section: (none)

Explanation

Explanation/Reference:

QUESTION 59
Given:



```
public class Job {
    String name;
    Integer cost;
    Job(String name, Integer cost) {
        this.name = name;
        this.cost = cost;
    }
    String getName() { return name; }
    int getCost() { return cost; }
    public static void main(String[] args) {
        Job j1 = new Job("IT", null);
        DoubleSupplier jS1 = j1::getCost;
        System.out.println(j1.getName() + ":" + jS1.getAsDouble());
    }
}
```

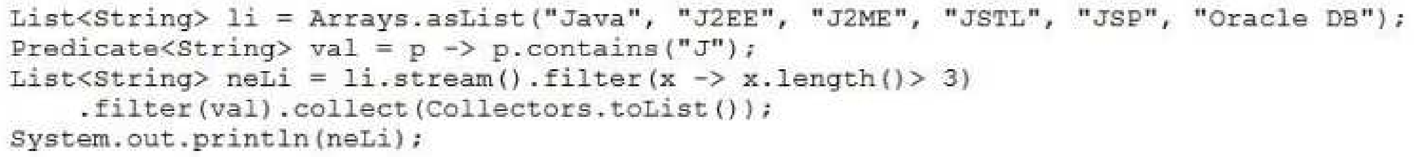
What is the result?

A. `IT:null`
B. A `NullPointerException` is thrown at run time.
C. A compilation error occurs.
D. `IT:0.0`

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 60
Given the code fragment:



```
List<String> li = Arrays.asList("Java", "J2EE", "J2ME", "JSTL", "JSP", "Oracle DB");
Predicate<String> val = p -> p.contains("J");
List<String> neLi = li.stream().filter(x -> x.length()> 3)
    .filter(val).collect(Collectors.toList());
System.out.println(neLi);
```

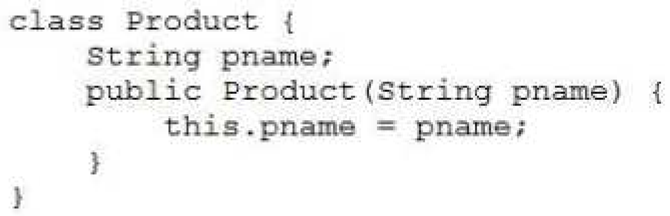
What is the result?

A. A compilation error occurs.
B. `[Java, J2EE, J2ME, JSTL, JSP]`
C. `null`
D. `[Java, J2EE, J2ME, JSTL]`

Correct Answer: D
Section: (none)
Explanation

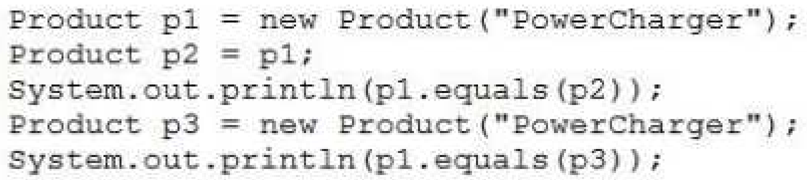
Explanation/Reference:

QUESTION 61
Given:



```
class Product {
    String pname;
    public Product(String pname) {
        this.pname = pname;
    }
}
```

and the code fragment:



```
Product p1 = new Product("PowerCharger");
Product p2 = p1;
System.out.println(p1.equals(p2));
Product p3 = new Product("PowerCharger");
System.out.println(p1.equals(p3));
```

What is the result?

A. `true`
   `true`

B. `false`
   `true`

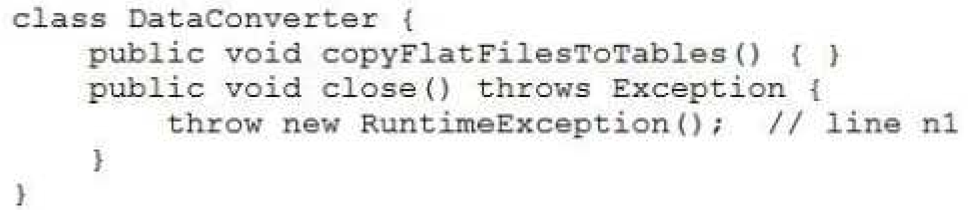
C. `false`
   `false`

D. `true`
   `false`

Correct Answer: D
Section: (none)
Explanation

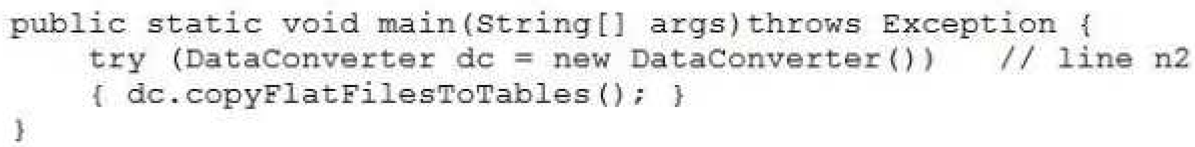
Explanation/Reference:

QUESTION 62
Given:



```
class DataConverter {
    public void copyFlatFilesToTables() { }
    public void close() throws Exception {
        throw new RuntimeException();  // line n1
    }
}
```

and the code fragment:



```
public static void main(String[] args)throws Exception {
    try (DataConverter dc = new DataConverter())    // line n2
    { dc.copyFlatFilesToTables(); }
}
```

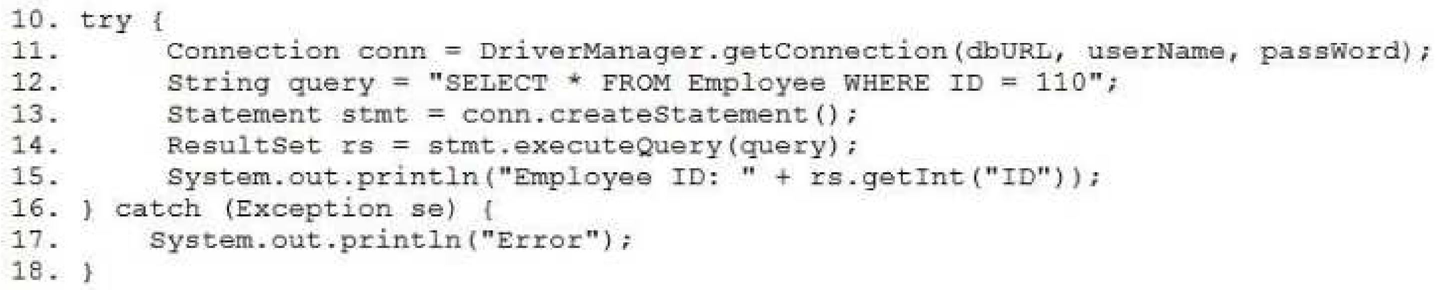
What is the result?

A. A compilation error occurs at `line n2`.
B. A compilation error occurs because the `try` block doesn't have a `catch` or `finally` block.
C. A compilation error occurs at `line n1`.
D. The program compiles successfully.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 63
Given the code fragment:



```
10. try {
11.       Connection conn = DriverManager.getConnection(dbURL, userName, passWord);
12.       String query = "SELECT * FROM Employee WHERE ID = 110";
13.       Statement stmt = conn.createStatement();
14.       ResultSet rs = stmt.executeQuery(query);
15.       System.out.println("Employee ID: " + rs.getInt("ID"));
16. } catch (Exception se) {
17.      System.out.println("Error");
18. }
```

Assume that:

The required database driver is configured in the classpath.
The appropriate database is accessible with the `dbURL, userName`, and `passWord` exists
The `Employee` table has a column `ID` of type integer and the SQL query matches one record.

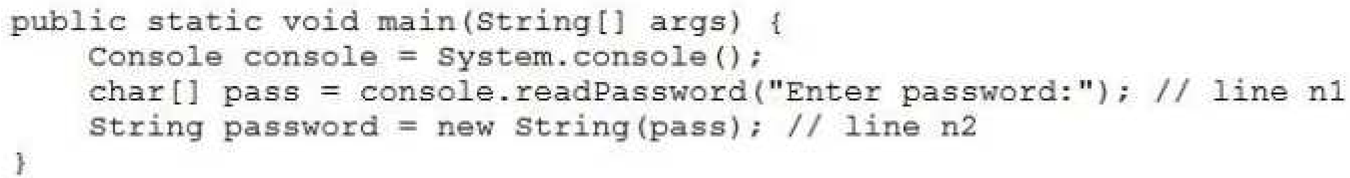
What is the result?

A. Compilation fails at line 14.
B. Compilation fails at line 15.
C. The code prints the employee ID.
D. The code prints `Error.`

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 64
Given the code fragment:



```
public static void main(String[] args) {
    Console console = System.console();
    char[] pass = console.readPassword("Enter password:"); // line n1
    String password = new String(pass); // line n2
}
```

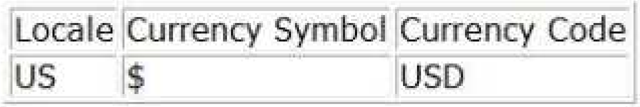
What is the result?

A. A compilation error occurs at `line n1.`
B. A compilation error occurs at `line n2.`
C. The code reads the password without echoing characters on the console.
D. A compilation error occurs because the `IOException` isn't declared to be thrown or caught?

Correct Answer: A
Section: (none)
Explanation

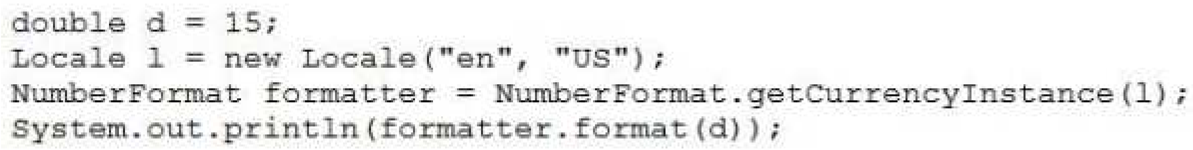
Explanation/Reference:

QUESTION 65



Locale	Currency Symbol	Currency Code
US	$	USD

and the code fragment?



```
double d = 15;
Locale l = new Locale("en", "US");
NumberFormat formatter = NumberFormat.getCurrencyInstance(l);
System.out.println(formatter.format(d));
```

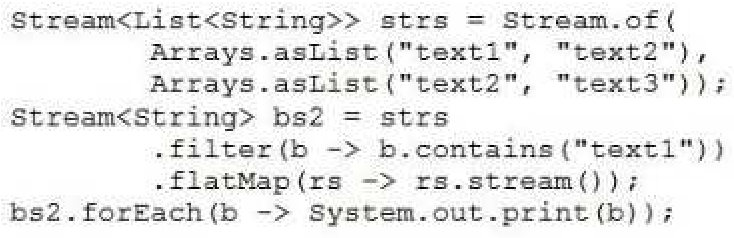
What is the result?

A. `$15.00`
B. `15 $`
C. `USD 15.00`
D. `USD $15`

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 66
Given the code fragment:



```
Stream<List<String>> strs = Stream.of(
        Arrays.asList("text1", "text2"),
        Arrays.asList("text2", "text3"));
Stream<String> bs2 = strs
        .filter(b -> b.contains("text1"))
        .flatMap(rs -> rs.stream());
bs2.forEach(b -> System.out.print(b));
```

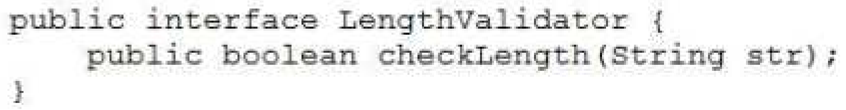
What is the result?

A. `text1text2`
B. `text1text2text2text3`
C. `text1`
D. `[text1, text2]`

Correct Answer: A
Section: (none)
Explanation

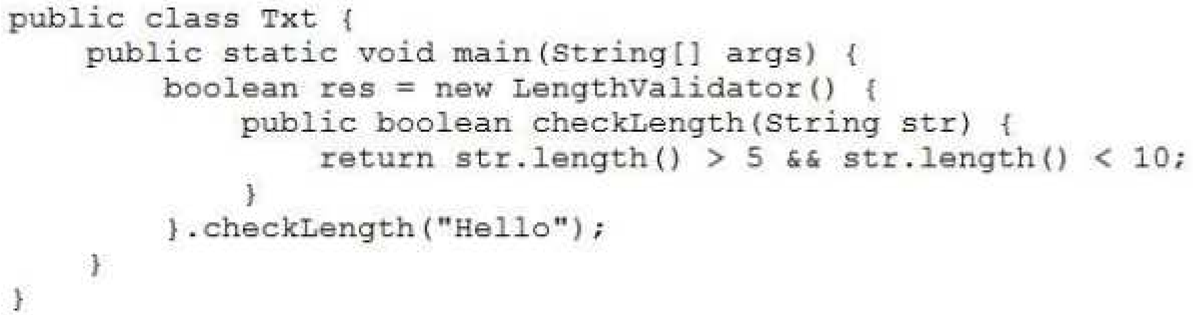
Explanation/Reference:

QUESTION 67
Given:



```
public interface LengthValidator {
    public boolean checkLength(String str);
}
```

and



```
public class Txt {
    public static void main(String[] args) {
        boolean res = new LengthValidator() {
            public boolean checkLength(String str) {
                return str.length() > 5 && str.length() < 10;
            }
        }.checkLength("Hello");
    }
}
```

Which interface from the `java.util.function` package should you use to refactor the class `Txt`?

A. `Consumer`
B. `Predicate`

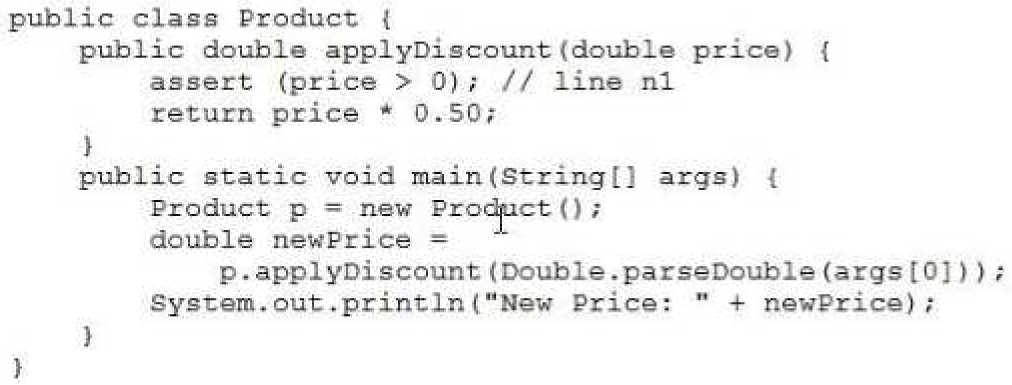
C. `Supplier`

D. `Function`

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Reference: https://docs.oracle.com/javase/8/docs/api/java/util/function/package-summary.html

QUESTION 68
Given:



```
public class Product {
    public double applyDiscount(double price) {
        assert (price > 0); // line n1
        return price * 0.50;
    }
    public static void main(String[] args) {
        Product p = new Product();
        double newPrice =
            p.applyDiscount(Double.parseDouble(args[0]));
        System.out.println("New Price: " + newPrice);
    }
}
```

and the command:

```
java Product 0
```

What is the result?

A. An `AssertionError` is thrown.

B. A compilation error occurs at `line n1`.

C. `New Price: 0.0`

D. A `NumberFormatException` is thrown at run time.

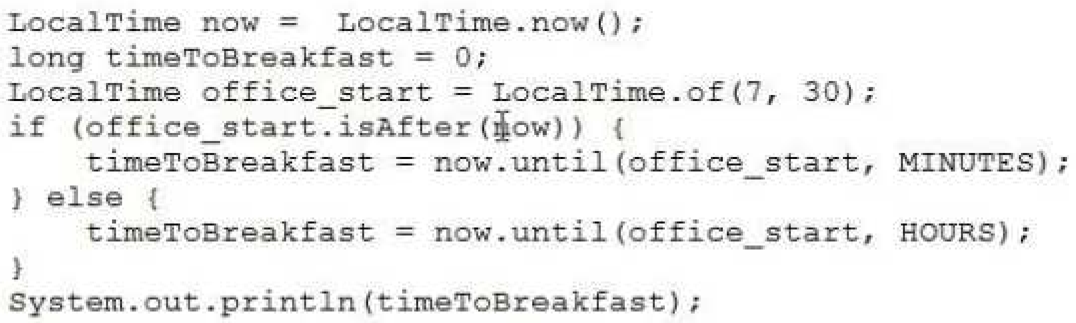
Correct Answer: C
Section: (none)

Explanation

Explanation/Reference:

QUESTION 69

Given the code fragment:



```
LocalTime now =  LocalTime.now();
long timeToBreakfast = 0;
LocalTime office_start = LocalTime.of(7, 30);
if (office_start.isAfter(now)) {
    timeToBreakfast = now.until(office_start, MINUTES);
} else {
    timeToBreakfast = now.until(office_start, HOURS);
}
System.out.println(timeToBreakfast);
```

Assume that the value of now is 6:30 in the morning.

What is the result?

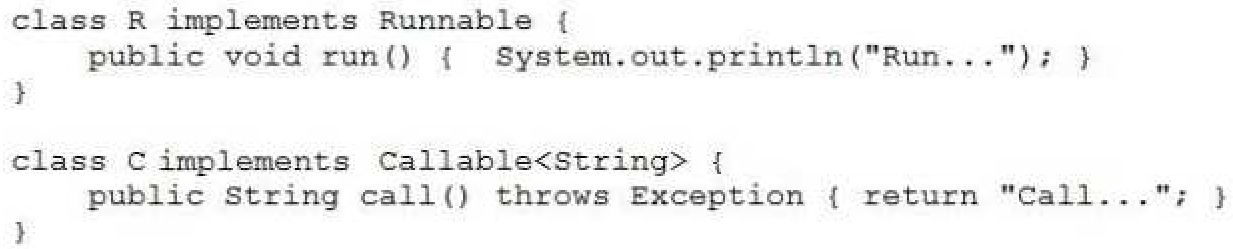
A. An exception is thrown at run time.
B. `0`
C. `60`
D. `1`

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

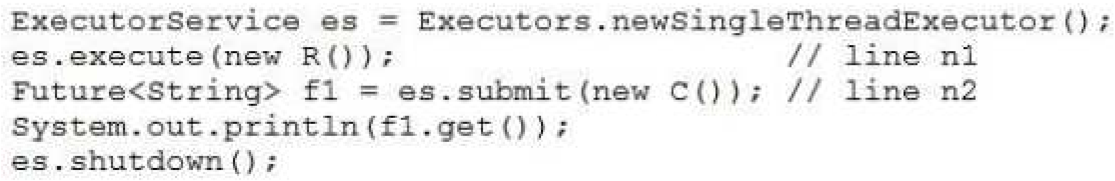
QUESTION 70

Given the code fragments:



```
class R implements Runnable {
    public void run() {  System.out.println("Run..."); }
}

class C implements  Callable<String> {
    public String call() throws Exception { return "Call..."; }
}
```

and



```
ExecutorService es = Executors.newSingleThreadExecutor();
es.execute(new R());                         // line n1
Future<String> f1 = es.submit(new C()); // line n2
System.out.println(f1.get());
es.shutdown();
```

What is the result?

A. The program prints `Run…` and throws an exception.

B. A compilation error occurs at `line n1`.

C. `Run…`
`Call…`

D. A compilation error occurs at `line n2`.

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:

QUESTION 71
Which two are elements of a singleton class? (Choose two.)

A. a `transient` reference to point to the single instance

B. a `public` method to instantiate the single instance

C. a `public static` method to return a copy of the singleton reference

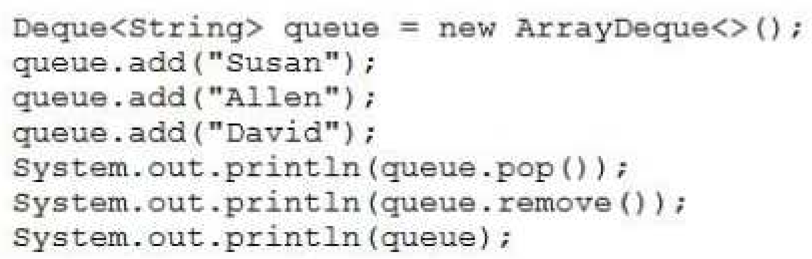
D. a `private` constructor to the class

E. a `public` reference to point to the single instance

Correct Answer: BD
Section: (none)
Explanation

Explanation/Reference:

QUESTION 72
Given the code fragment:



```
Deque<String> queue = new ArrayDeque<>();
queue.add("Susan");
queue.add("Allen");
queue.add("David");
System.out.println(queue.pop());
System.out.println(queue.remove());
System.out.println(queue);
```

What is the result?

A. `David`
`David`
`[Susan, Allen]`

B. `Susan`
`Susan`
`[Susan, Allen]`

C. `Susan`
`Allen`
`[David]`

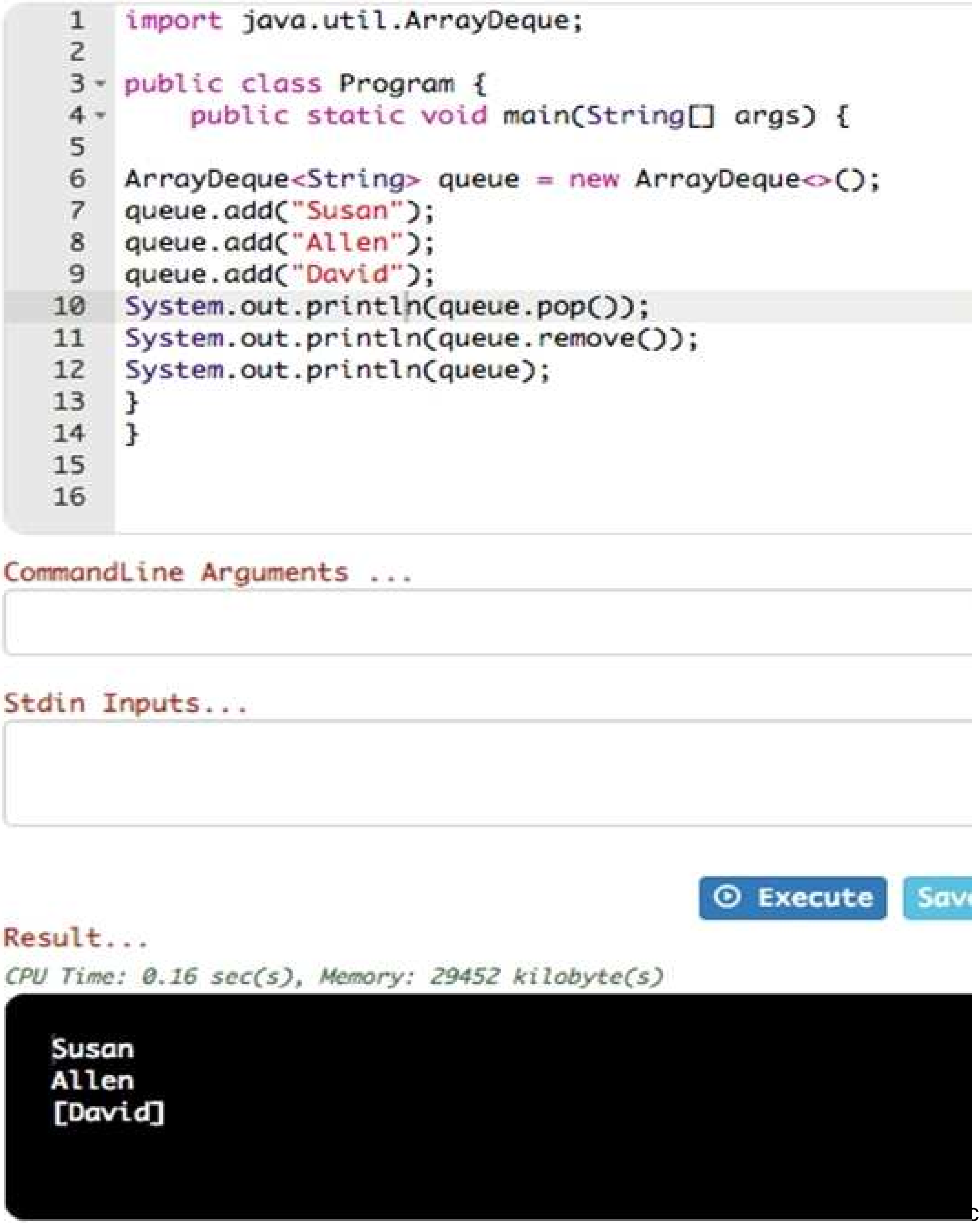
D. `David`
`Allen`
`[Susan]`

E. `Susan`
`Allen`

```
   [Susan, David]
```

Correct Answer: C
Section: (none)
Explanation

Explanation/Reference:
Explanation:



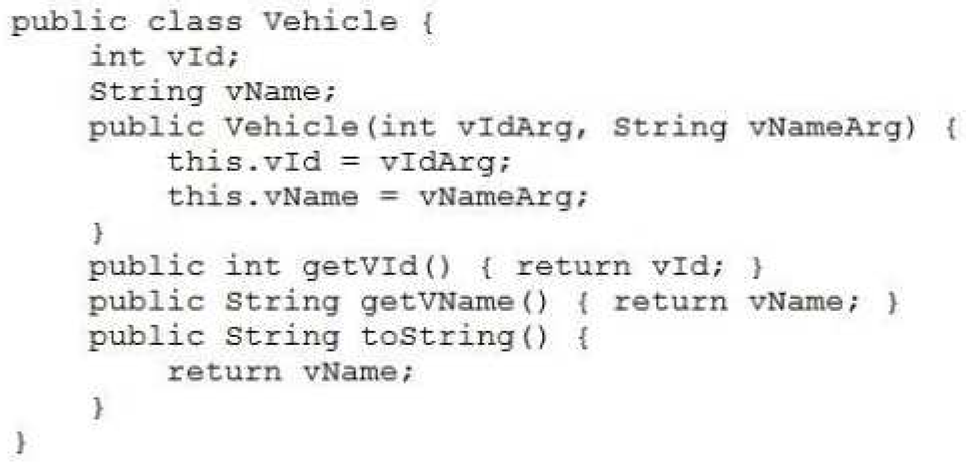
```java
import java.util.ArrayDeque;

public class Program {
    public static void main(String[] args) {

ArrayDeque<String> queue = new ArrayDeque<>();
queue.add("Susan");
queue.add("Allen");
queue.add("David");
System.out.println(queue.pop());
System.out.println(queue.remove());
System.out.println(queue);
}
}
```

CPU Time: 0.16 sec(s), Memory: 29452 kilobyte(s)

```
Susan
Allen
[David]
```

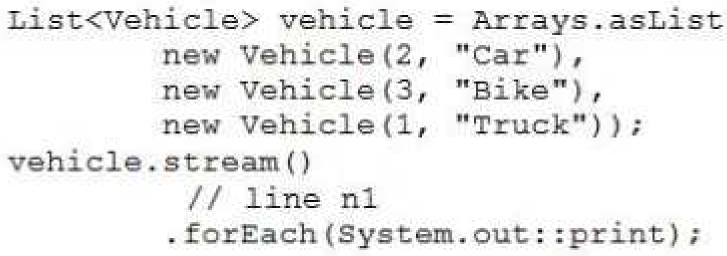
com/

QUESTION 73
Given:



```
public class Vehicle {
    int vId;
    String vName;
    public Vehicle(int vIdArg, String vNameArg) {
        this.vId = vIdArg;
        this.vName = vNameArg;
    }
    public int getVId() { return vId; }
    public String getVName() { return vName; }
    public String toString() {
        return vName;
    }
}
```

and the code fragment:



```
List<Vehicle> vehicle = Arrays.asList(
        new Vehicle(2, "Car"),
        new Vehicle(3, "Bike"),
        new Vehicle(1, "Truck"));
vehicle.stream()
         // line n1
        .forEach(System.out::print);
```

Which two code fragments, when inserted at `line n1` independently, enable the code to print `TruckCarBike`?

A. `.sorted ((v1, v2) -> v1.getVId() < v2.getVId())`

B. `.sorted (Comparable.comparing (Vehicle: :getVName)).reversed ()`

C. `.map (v -> v.getVid())`
`.sorted ()`

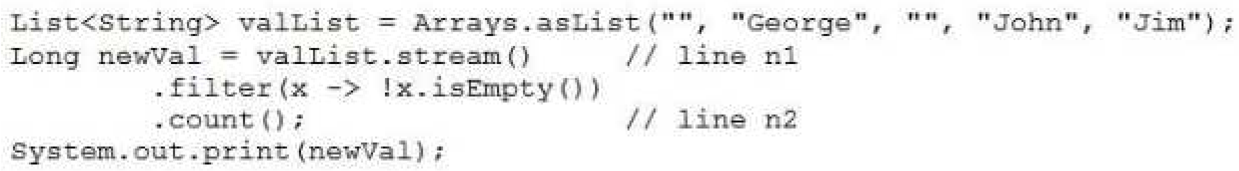
D. `.sorted((v1, v2) -> Integer.compare(v1.getVId(), v2.getVid()))`

E. `.sorted(Comparator.comparing ((Vehicle v) -> v.getVId()))`

Correct Answer: DE
Section: (none)
Explanation

Explanation/Reference:

QUESTION 74
Given the code fragment:



```
List<String> valList = Arrays.asList("", "George", "", "John", "Jim");
Long newVal = valList.stream()      // line n1
        .filter(x -> !x.isEmpty())
        .count();                   // line n2
System.out.print(newVal);
```

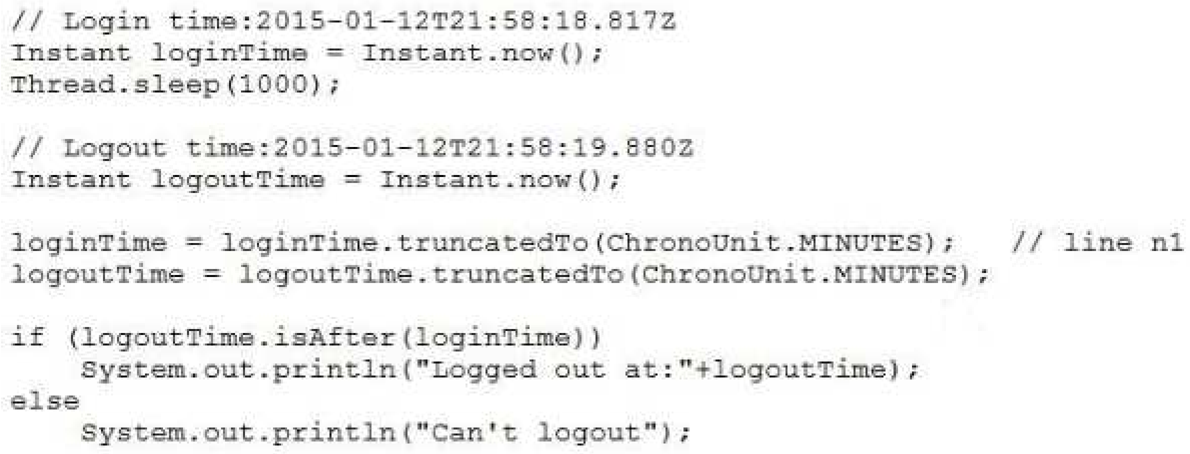
What is the result?

A. A compilation error occurs at `line n2`.
B. 3
C. 2
D. A compilation error occurs at `line n1.`

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 75
Given the code fragment:



```
// Login time:2015-01-12T21:58:18.817Z
Instant loginTime = Instant.now();
Thread.sleep(1000);

// Logout time:2015-01-12T21:58:19.880Z
Instant logoutTime = Instant.now();

loginTime = loginTime.truncatedTo(ChronoUnit.MINUTES);   // line n1
logoutTime = logoutTime.truncatedTo(ChronoUnit.MINUTES);

if (logoutTime.isAfter(loginTime))
    System.out.println("Logged out at:"+logoutTime);
else
    System.out.println("Can't logout");
```

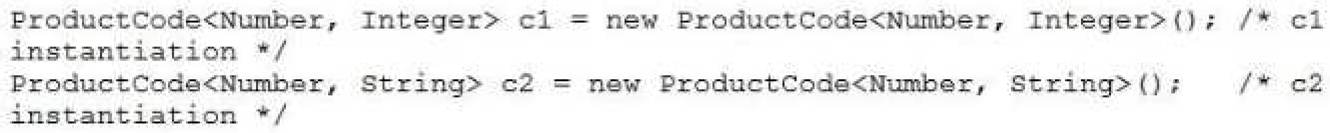
What is the result?

A. A compilation error occurs at `line n1`.
B. `Logged out at: 2015-01-12T21:58:19.880Z`
C. `Can’t logout`
D. `Logged out at: 2015-01-12T21:58:00Z`

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

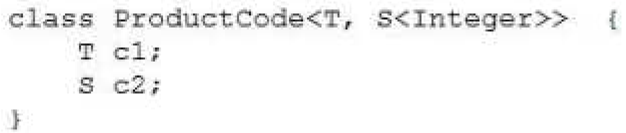
QUESTION 76
Given the code fragment:



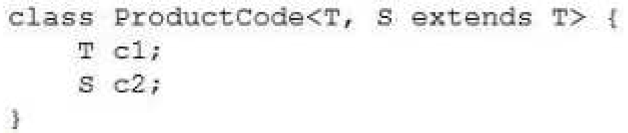
```
ProductCode<Number, Integer> c1 = new ProductCode<Number, Integer>(); /* c1
instantiation */
ProductCode<Number, String> c2 = new ProductCode<Number, String>();   /* c2
instantiation */
```

You have been asked to define the `ProductCode` class. The definition of the `ProductCode` class must allow `c1` instantiation to succeed and cause a compilation error on c2 instantiation.

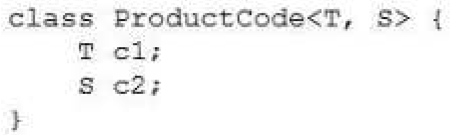
Which definition of ProductCode meets the requirement?

A. 

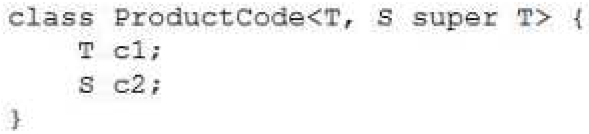
```
class ProductCode<T, S<Integer>>  {
      T c1;
      S c2;
}
```

B. 

```
class ProductCode<T, S extends T> {
      T c1;
      S c2;
}
```

C. 

```
class ProductCode<T, S> {
      T c1;
      S c2;
}
```

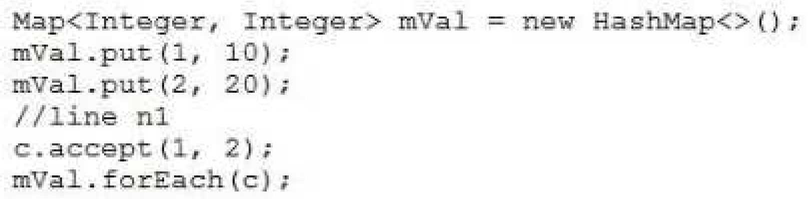
D. 

```
class ProductCode<T, S super T> {
      T c1;
      S c2;
}
```

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 77
Given the code fragment:



```
Map<Integer, Integer> mVal = new HashMap<>();
mVal.put(1, 10);
mVal.put(2, 20);
//line n1
c.accept(1, 2);
mVal.forEach(c);
```

Which statement can be inserted into `line n1` to print `1,2; 1,10; 2,20;`?

A. `BiConsumer<Integer,Integer> c = (i, j) ->  {System.out.print (i + “,” + j+ “; “);};`

B. `BiFunction<Integer, Integer, String> c = (i, j)–>{System.out.print (i + “,” + j+ “; “)};`

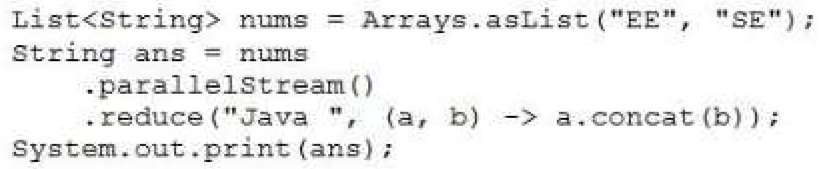
C. `BiConsumer<Integer, Integer, String> c = (i, j) –>{System.out.print (i + “,” + j+ “; “)};`

D. `BiConsumer<Integer, Integer, Integer> c = (i, j) –>{System.out.print (i + “,” + j+ “; “);};`

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:
Reference: https://www.concretepage.com/java/jdk-8/java-8-biconsumer-bifunction-bipredicate-example

QUESTION 78
Given the code fragment:



```
List<String> nums = Arrays.asList("EE", "SE");
String ans = nums
     .parallelStream()
     .reduce("Java ", (a, b) -> a.concat(b));
System.out.print(ans);
```

What is the result?

A. `Java EEJava EESE`

B. `Java EESE`

C. The program prints either:
`Java EEJava SE`
or
`Java SEJava EE`

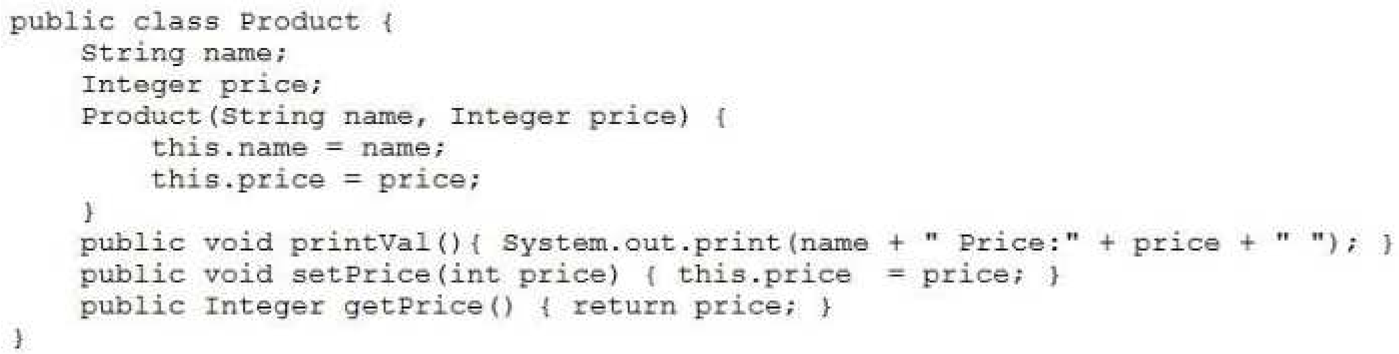
D. `Java EEJava SE`

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

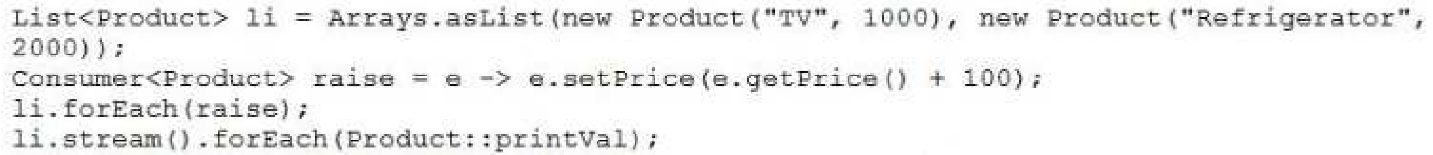
QUESTION 79

Given the code fragments :



```
public class Product {
    String name;
    Integer price;
    Product(String name, Integer price) {
        this.name = name;
        this.price = price;
    }
    public void printVal(){ System.out.print(name + " Price:" + price + " "); }
    public void setPrice(int price) { this.price  = price; }
    public Integer getPrice() { return price; }
}
```

and



```
List<Product> li = Arrays.asList(new Product("TV", 1000), new Product("Refrigerator",
2000));
Consumer<Product> raise = e -> e.setPrice(e.getPrice() + 100);
li.forEach(raise);
li.stream().forEach(Product::printVal);
```

What is the result?

A. `TV Price :110 Refrigerator Price :2100`

B. A compilation error occurs.

C. `TV Price :1000 Refrigerator Price :2000`

D. The program prints nothing.

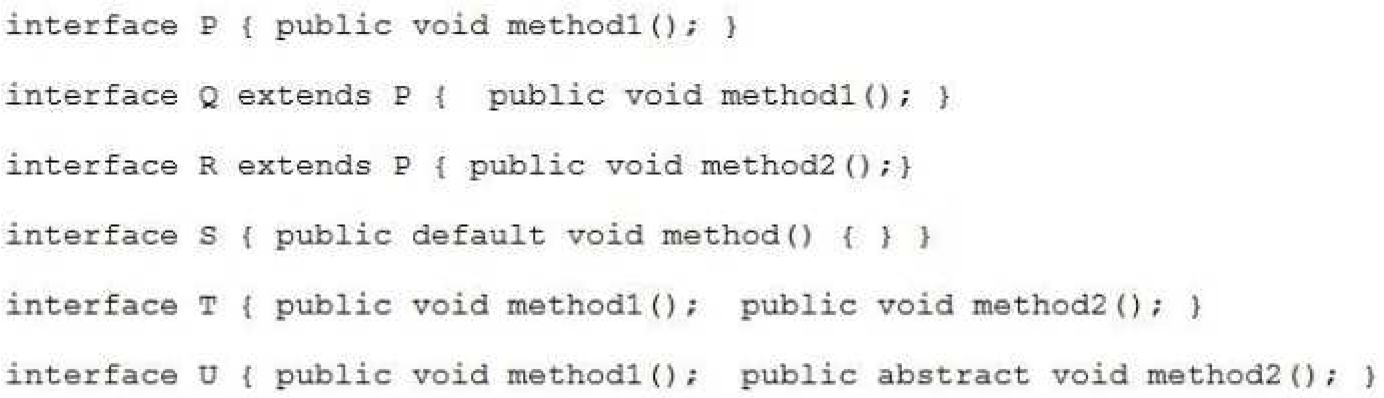
Correct Answer: A

Section: (none)

Explanation

Explanation/Reference:

QUESTION 80
Given:



```
interface P { public void method1(); }

interface Q extends P {  public void method1(); }

interface R extends P { public void method2();}

interface S { public default void method() { } }

interface T { public void method1();  public void method2(); }

interface U { public void method1();  public abstract void method2(); }
```

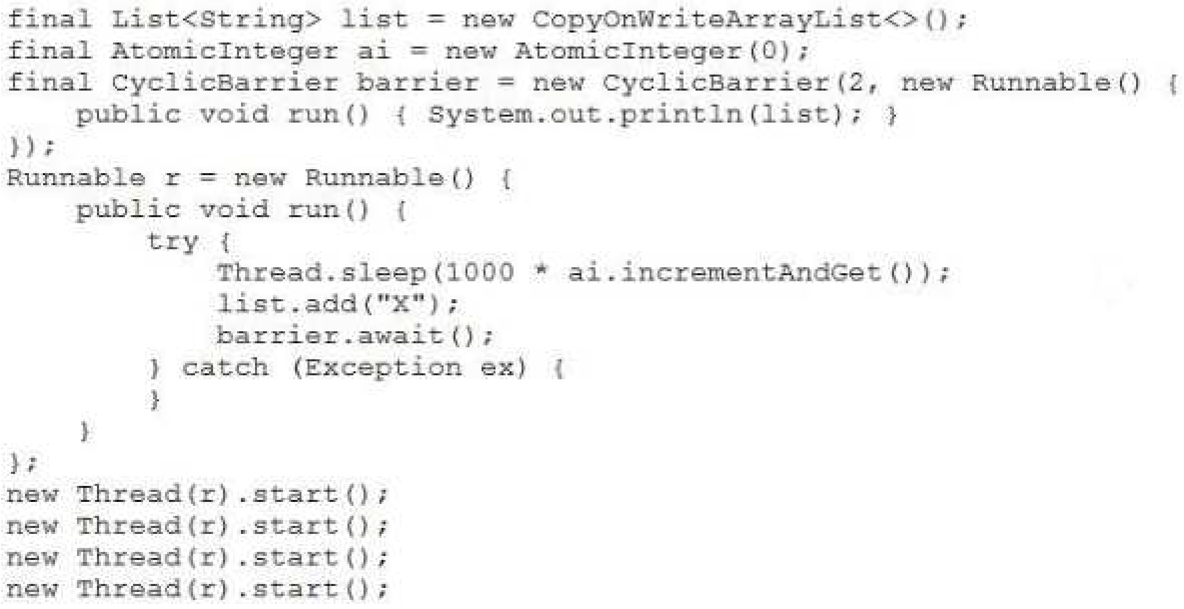
Which two interfaces can you use to create lambda expressions? (Choose two.)

A. T
B. R
C. P
D. S
E. Q
F. U

Correct Answer: CD
Section: (none)
Explanation

Explanation/Reference:

QUESTION 81
Given the code fragment:



```
final List<String> list = new CopyOnWriteArrayList<>();
final AtomicInteger ai = new AtomicInteger(0);
final CyclicBarrier barrier = new CyclicBarrier(2, new Runnable() {
    public void run() { System.out.println(list); }
});
Runnable r = new Runnable() {
    public void run() {
        try {
            Thread.sleep(1000 * ai.incrementAndGet());
            list.add("X");
            barrier.await();
        } catch (Exception ex) {
        }
    }
};
new Thread(r).start();
new Thread(r).start();
new Thread(r).start();
new Thread(r).start();
```

What is the result ?

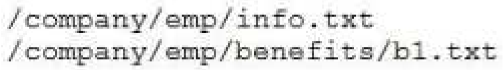
A.
```
[X]
[X, X]
[X, X, X]
[X, X, X, X]
```
B. `[X, X]`

C.
```
[X]
[X, X]
[X, X, X]
```
D.
```
[X, X]
[X, X, X, X]
```

Correct Answer: A
Section: (none)
Explanation

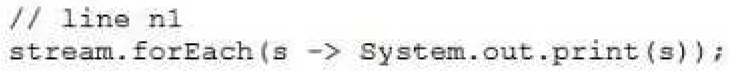
Explanation/Reference:

QUESTION 82
Given that these files exist and are accessible:



```
/company/emp/info.txt
/company/emp/benefits/b1.txt
```

and given the code fragment:



```
// line n1
stream.forEach(s -> System.out.print(s));
```

Which code fragment can be inserted at `line n1` to enable the code to print only `/company/emp`?

A. `Stream<Path> stream = Files.list (Paths.get (“/company”));`

B. `Stream<Path> stream = Files.find(`
`Paths.get (“/company”), 1,`
`(p,b) –> b.isDirectory (), FileVisitOption.FOLLOW_LINKS);`

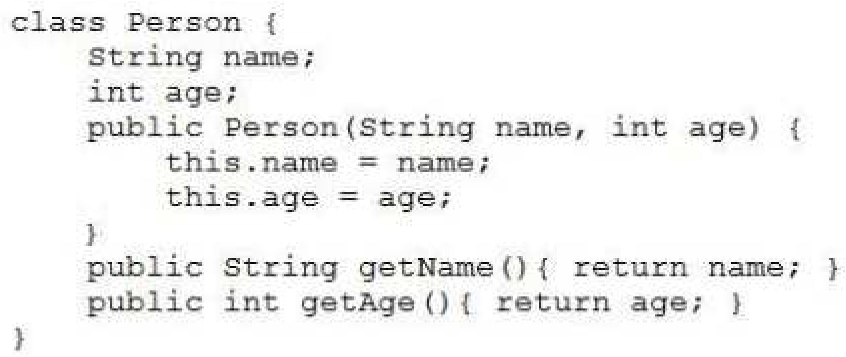
C. `Stream<Path> stream = Files.walk (Paths.get (“/company”));`

D. `Stream<Path> stream = Files.list (Paths.get (“/company/emp”));`

Correct Answer: B
Section: (none)
Explanation

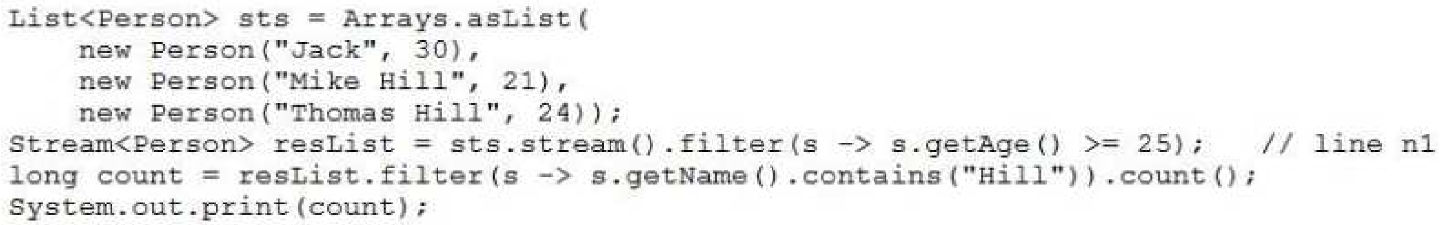
Explanation/Reference:

QUESTION 83
Given:



```
class Person {
    String name;
    int age;
    public Person(String name, int age) {
        this.name = name;
        this.age = age;
    }
    public String getName(){ return name; }
    public int getAge(){ return age; }
}
```

and the code fragment:



```
List<Person> sts = Arrays.asList(
    new Person("Jack", 30),
    new Person("Mike Hill", 21),
    new Person("Thomas Hill", 24));
Stream<Person> resList = sts.stream().filter(s -> s.getAge() >= 25);   // line n1
long count = resList.filter(s -> s.getName().contains("Hill")).count();
System.out.print(count);
```

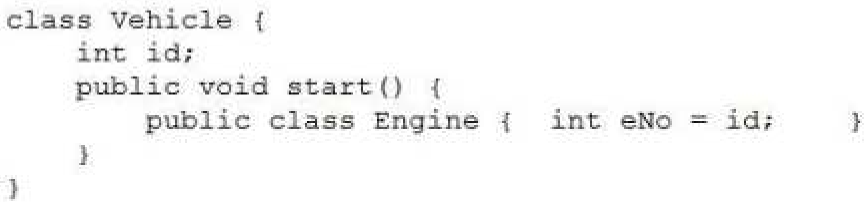
What is the result?

A. `0`
B. A compilation error occurs at `line n1.`
C. An `Exception` is thrown at run time.
D. `2`

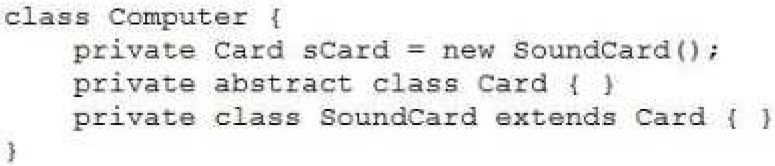
Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

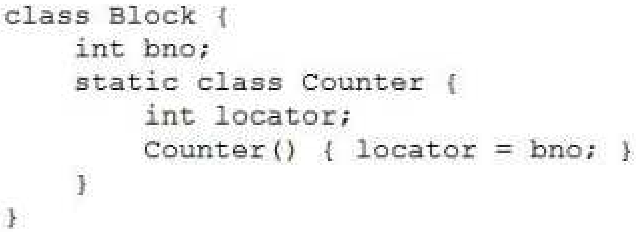
QUESTION 84
Which class definition compiles?

A. 

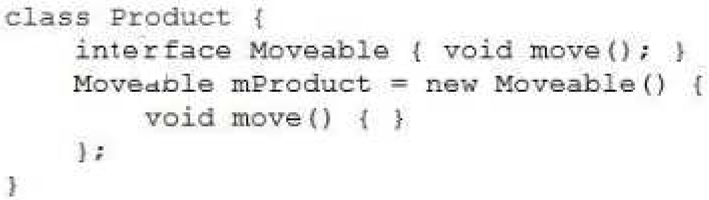
```
class Vehicle {
    int id;
    public void start() {
        public class Engine {  int eNo = id;    }
    }
}
```

B. 

```
class Computer {
    private Card sCard = new SoundCard();
    private abstract class Card { }
    private class SoundCard extends Card { }
}
```

C. 

```
class Block {
    int bno;
    static class Counter {
        int locator;
        Counter() { locator = bno; }
    }
}
```

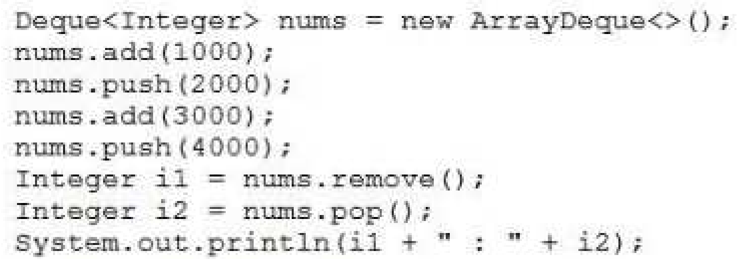
D. 

```
class Product {
    interface Moveable { void move(); }
    Moveable mProduct = new Moveable() {
        void move() { }
    };
}
```

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 85
Given the code fragment:



```
Deque<Integer> nums = new ArrayDeque<>();
nums.add(1000);
nums.push(2000);
nums.add(3000);
nums.push(4000);
Integer i1 = nums.remove();
Integer i2 = nums.pop();
System.out.println(i1 + " : " + i2);
```

What is the result?

A. `4000 : 2000`
B. `4000 : 1000`
C. `1000 : 4000`
D. `1000 : 2000`

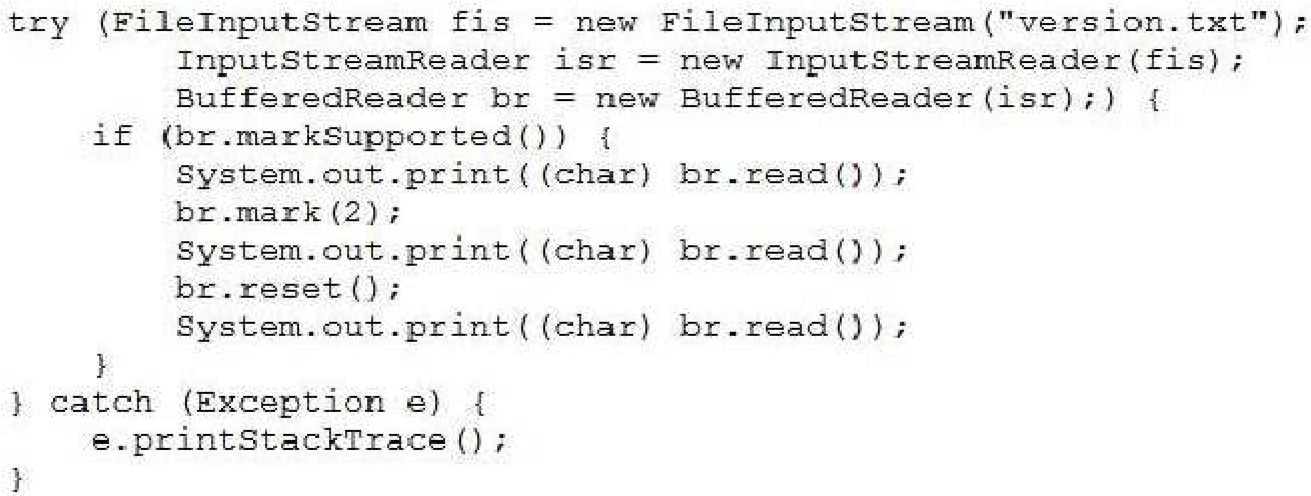
Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 86
Given that `version.txt` is accessible and contains:

`1234567890`

and given the code fragment:



```
try (FileInputStream fis = new FileInputStream("version.txt");
        InputStreamReader isr = new InputStreamReader(fis);
        BufferedReader br = new BufferedReader(isr);) {
    if (br.markSupported()) {
        System.out.print((char) br.read());
        br.mark(2);
        System.out.print((char) br.read());
        br.reset();
        System.out.print((char) br.read());
    }
} catch (Exception e) {
    e.printStackTrace();
}
```

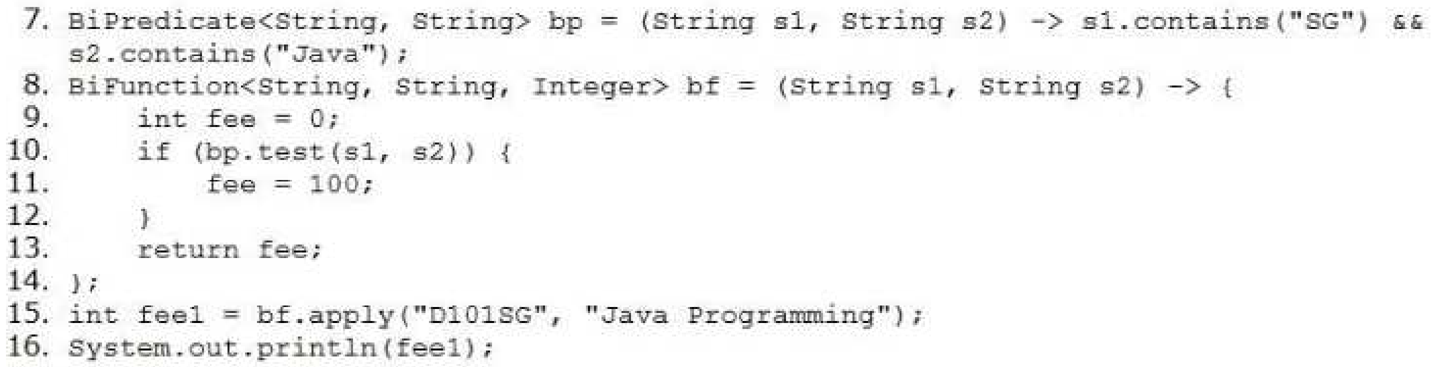
What is the result?

A. `121`
B. `122`
C. `135`
D. The program prints nothing.

Correct Answer: B
Section: (none)
Explanation

Explanation/Reference:

QUESTION 87



```
 7. BiPredicate<String, String> bp = (String s1, String s2) -> s1.contains("SG") &&
    s2.contains("Java");
 8. BiFunction<String, String, Integer> bf = (String s1, String s2) -> {
 9.     int fee = 0;
10.     if (bp.test(s1, s2)) {
11.         fee = 100;
12.     }
13.     return fee;
14. };
15. int fee1 = bf.apply("D101SG", "Java Programming");
16. System.out.println(fee1);
```

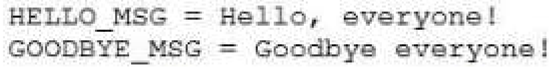
What is the result?

A. A compilation error occurs at line 7.
B. `100`
C. A compilation error occurs at line 8.
D. A compilation error occurs at line 15.

Correct Answer: A
Section: (none)
Explanation

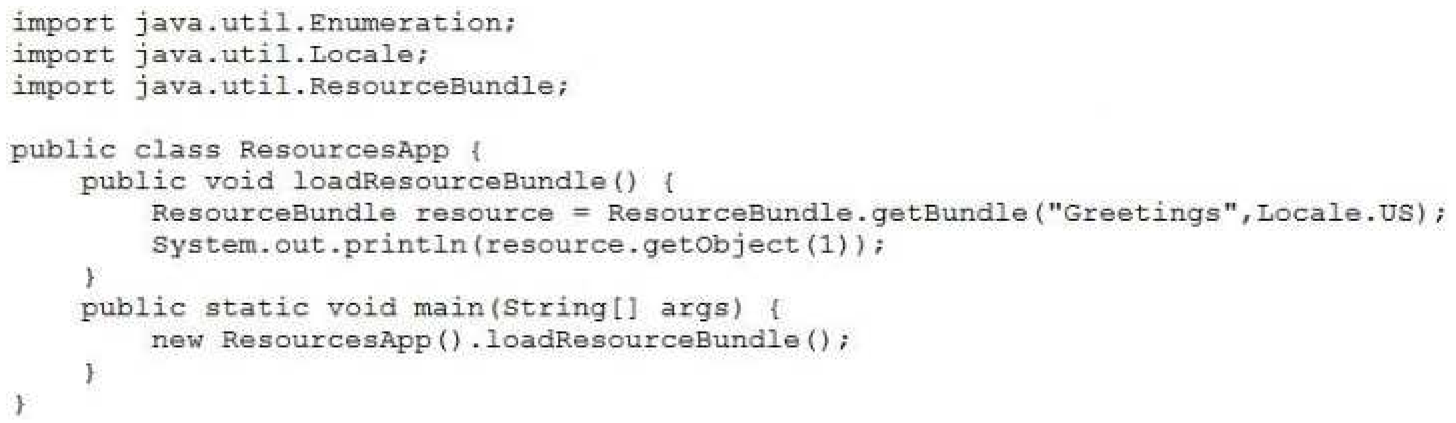
Explanation/Reference:

QUESTION 88
Given the `Greetings.properties` file, containing:



```
HELLO_MSG = Hello, everyone!
GOODBYE_MSG = Goodbye everyone!
```

and given:



```
import java.util.Enumeration;
import java.util.Locale;
import java.util.ResourceBundle;

public class ResourcesApp {
    public void loadResourceBundle() {
        ResourceBundle resource = ResourceBundle.getBundle("Greetings",Locale.US);
        System.out.println(resource.getObject(1));
    }
    public static void main(String[] args) {
        new ResourcesApp().loadResourceBundle();
    }
}
```

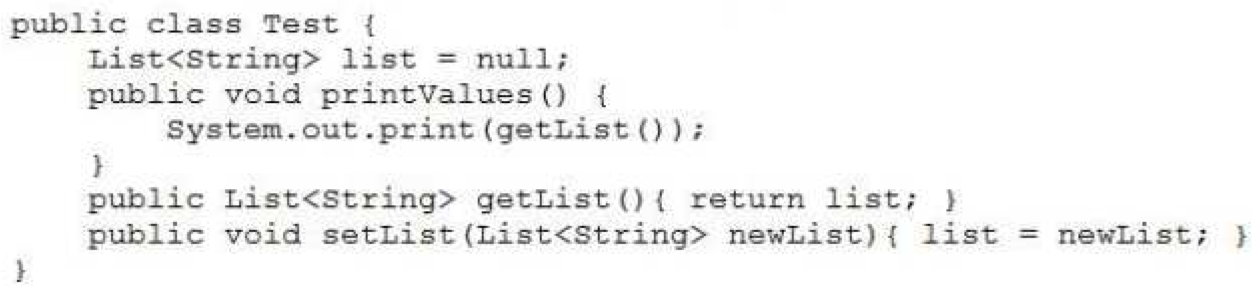
What is the result?

A. Compilation fails.
B. `GOODBY_MSG`
C. `Hello, everyone!`
D. `Goodbye everyone!`
E. `HELLO_MSG`

Correct Answer: A
Section: (none)
Explanation

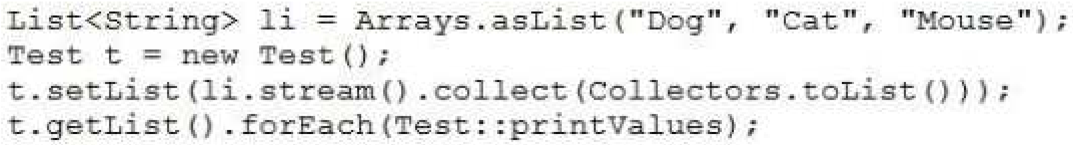
Explanation/Reference:

QUESTION 89
Given the code fragments:



```
public class Test {
    List<String> list = null;
    public void printValues() {
        System.out.print(getList());
    }
    public List<String> getList(){ return list; }
    public void setList(List<String> newList){ list = newList; }
}
```

and



```
List<String> li = Arrays.asList("Dog", "Cat", "Mouse");
Test t = new Test();
t.setList(li.stream().collect(Collectors.toList()));
t.getList().forEach(Test::printValues);
```

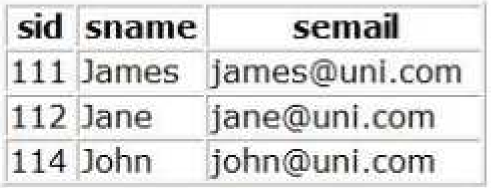
What is the result?

A. `null`
B. A compilation error occurs.
C. `DogCatMouse`
D. `[Dog, Cat, Mouse]`

Correct Answer: D
Section: (none)
Explanation

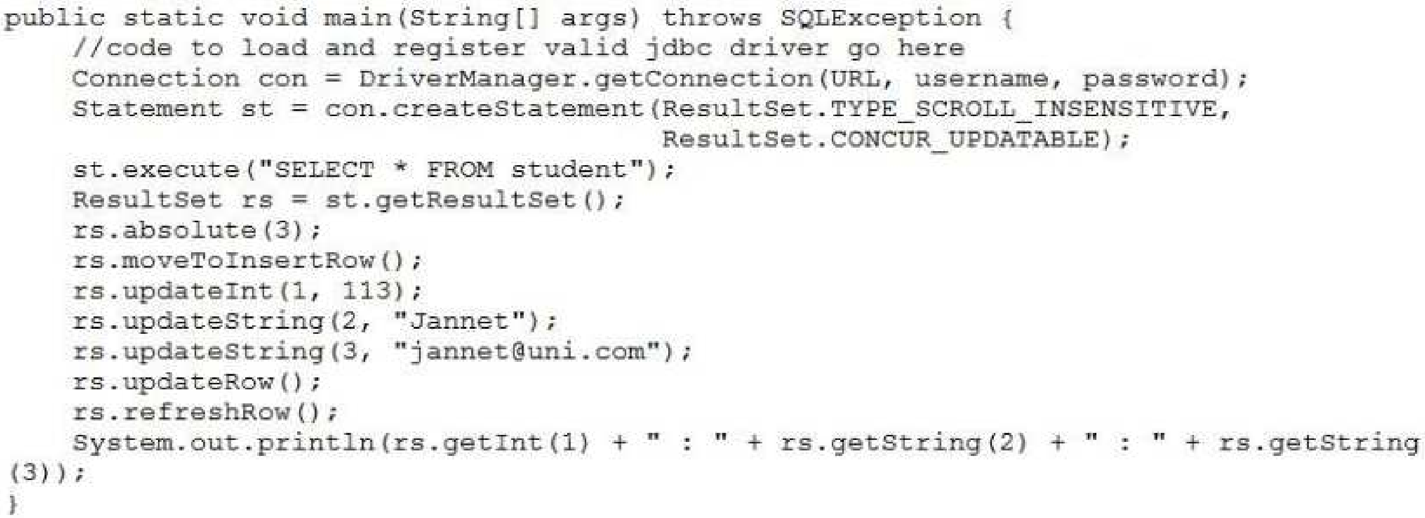
Explanation/Reference:

QUESTION 90
Given the records from the `STUDENT` table:



sid	sname	semail
111	James	james@uni.com
112	Jane	jane@uni.com
114	John	john@uni.com

Given the code fragment:



```
public static void main(String[] args) throws SQLException {
    //code to load and register valid jdbc driver go here
    Connection con = DriverManager.getConnection(URL, username, password);
    Statement st = con.createStatement(ResultSet.TYPE_SCROLL_INSENSITIVE,
                                       ResultSet.CONCUR_UPDATABLE);
    st.execute("SELECT * FROM student");
    ResultSet rs = st.getResultSet();
    rs.absolute(3);
    rs.moveToInsertRow();
    rs.updateInt(1, 113);
    rs.updateString(2, "Jannet");
    rs.updateString(3, "jannet@uni.com");
    rs.updateRow();
    rs.refreshRow();
    System.out.println(rs.getInt(1) + " : " + rs.getString(2) + " : " + rs.getString
(3));
}
```

Assume that the `URL, username,` and `password` are valid.

What is the result?

A. The `STUDENT` table is not updated and the program prints:
`114 : John : john@uni.com`

B. The `STUDENT` table is updated with the record:
`113 : Jannet : jannet@uni.com`
and the program prints:
`114 : John : john@uni.com`

C. The `STUDENT` table is updated with the record:
`113 : Jannet : jannet@uni.com`
and the program prints:

```
   113 : Jannet : jannet@uni.com
```

D. A `SQLException` is thrown at run time.

Correct Answer: D
Section: (none)
Explanation

Explanation/Reference:

QUESTION 91
Which two statements are true about the Fork/Join Framework? (Choose two.)

A. The `RecursiveTask` subclass is used when a task does not need to return a result.
B. The Fork/Join framework can help you take advantage of multicore hardware.
C. The Fork/Join framework implements a work-stealing algorithm.
D. The Fork/Join solution when run on multicore hardware always performs faster than standard sequential solution.

Correct Answer: AC
Section: (none)
Explanation

Explanation/Reference:
Reference: https://www.logicbig.com/tutorials/core-java-tutorial/java-multi-threading/fork-and-join.html

QUESTION 92
Which two statements are true about synchronization and locks? (Choose two.)

A. A thread automatically acquires the intrinsic lock on a synchronized statement when executed.
B. The intrinsic lock will be retained by a thread if return from a synchronized method is caused by an uncaught exception.
C. A thread exclusively owns the intrinsic lock of an object between the time it acquires the lock and the time it releases it.
D. A thread automatically acquires the intrinsic lock on a synchronized method’s object when entering that method.
E. Threads cannot acquire intrinsic locks on classes.

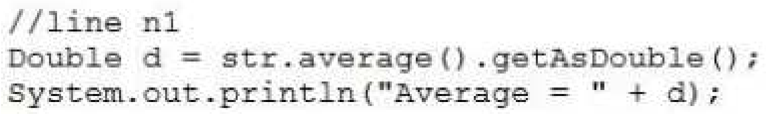
Correct Answer: AB
Section: (none)
Explanation

Explanation/Reference:

Reference: https://docs.oracle.com/javase/tutorial/essential/concurrency/locksync.html

QUESTION 93

Given the code fragment:



```
//line n1
Double d = str.average().getAsDouble();
System.out.println("Average = " + d);
```

Which should be inserted into `line n1` to print `Average = 2.5`?

A. `IntStream str = Stream.of (1, 2, 3, 4);`

B. `IntStream str = IntStream.of (1, 2, 3, 4);`

C. `DoubleStream str = Stream.of (1.0, 2.0, 3.0, 4.0);`

D. `Stream str = Stream.of (1, 2, 3, 4);`

Correct Answer: C

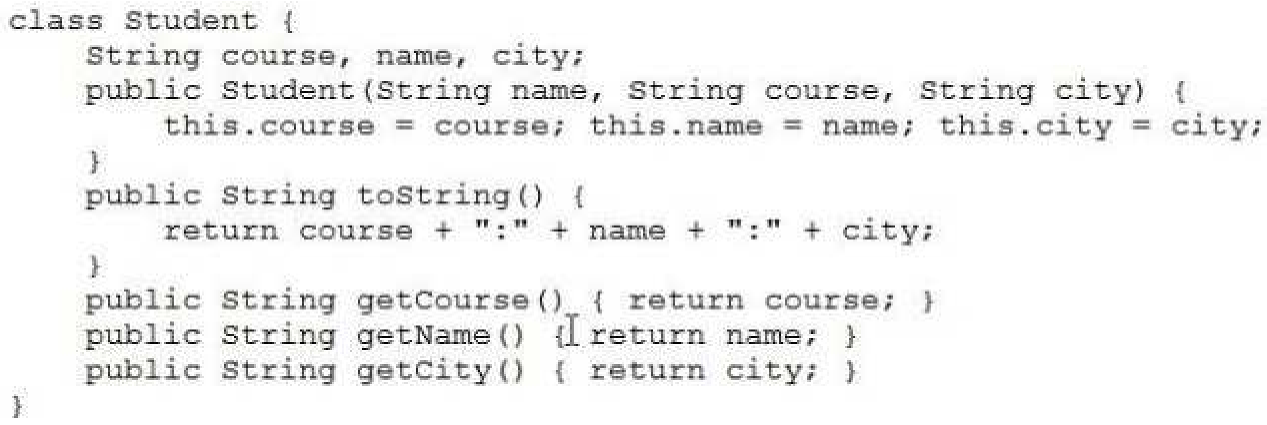
Section: (none)

Explanation

Explanation/Reference:

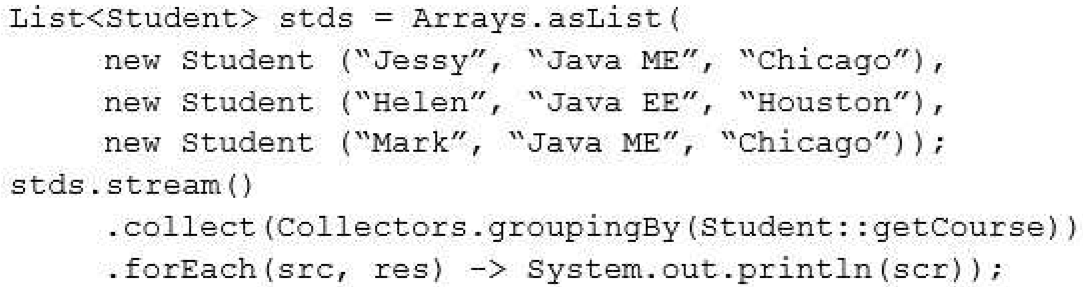
QUESTION 94

Given:



```
class Student {
    String course, name, city;
    public Student(String name, String course, String city) {
        this.course = course; this.name = name; this.city = city;
    }
    public String toString() {
        return course + ":" + name + ":" + city;
    }
    public String getCourse() { return course; }
    public String getName() { return name; }
    public String getCity() { return city; }
}
```

and the code fragment:



```
List<Student> stds = Arrays.asList(
     new Student (“Jessy”, “Java ME”, “Chicago”),
     new Student (“Helen”, “Java EE”, “Houston”),
     new Student (“Mark”, “Java ME”, “Chicago”));
stds.stream()
     .collect(Collectors.groupingBy(Student::getCourse))
     .forEach(src, res) -> System.out.println(scr));
```

What is the result?

A. `[Java EE: Helen:Houston]`
   `[Java ME: Jessy:Chicago, Java ME: Mark:Chicago]`

B. `Java EE`
   `Java ME`

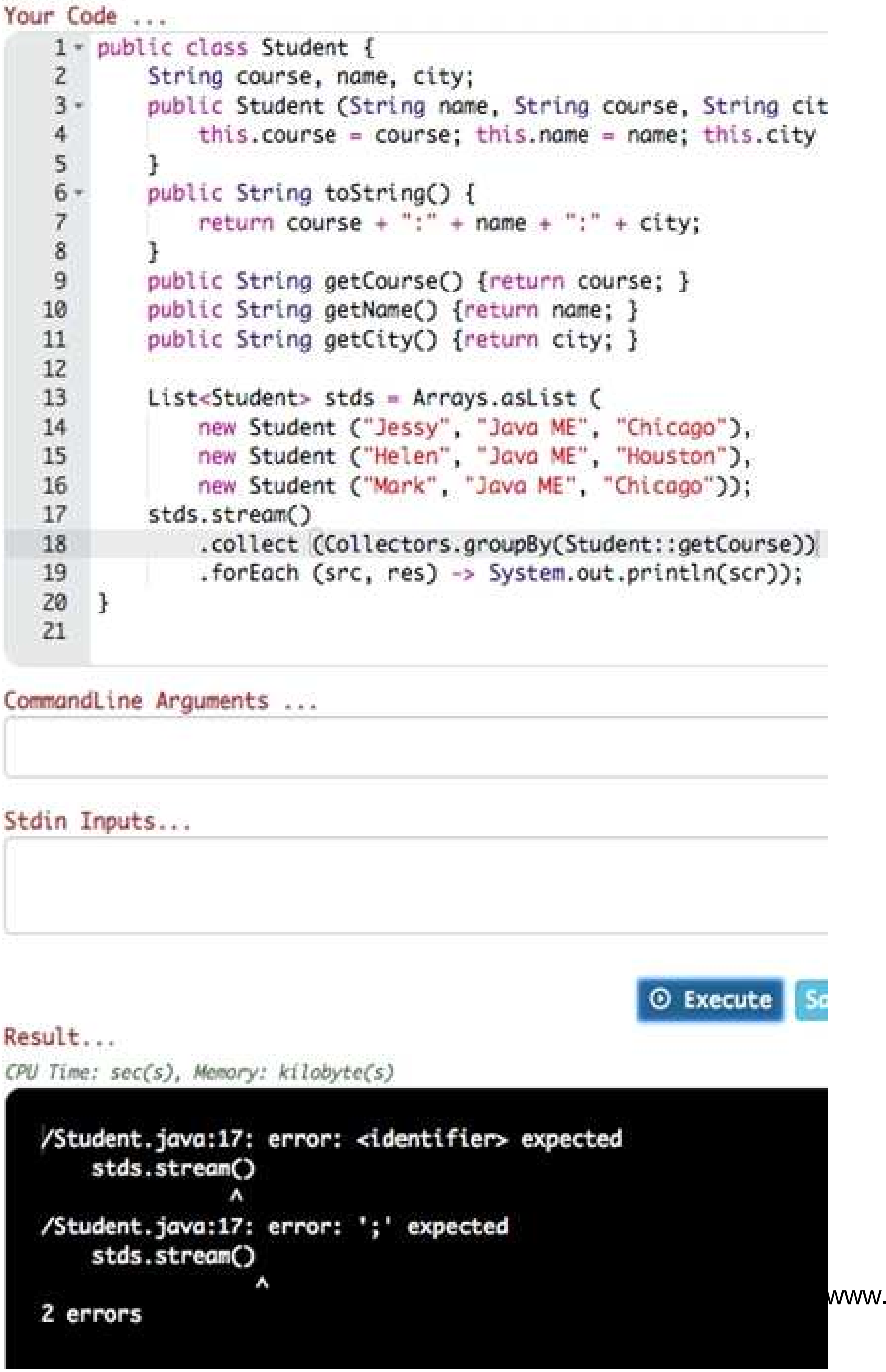
C. `[Java ME: Jessy:Chicago, Java ME: Mark:Chicago]`
   `[Java EE: Helen:Houston]`

D. A compilation error occurs.

Correct Answer: D
Section: (none)

Explanation

Explanation/Reference:
Explanation:



Your Code ...

```
public class Student {
    String course, name, city;
    public Student (String name, String course, String cit
        this.course = course; this.name = name; this.city
    }
    public String toString() {
        return course + ":" + name + ":" + city;
    }
    public String getCourse() {return course; }
    public String getName() {return name; }
    public String getCity() {return city; }

    List<Student> stds = Arrays.asList (
        new Student ("Jessy", "Java ME", "Chicago"),
        new Student ("Helen", "Java ME", "Houston"),
        new Student ("Mark", "Java ME", "Chicago"));
    stds.stream()
        .collect (Collectors.groupBy(Student::getCourse))
        .forEach (src, res) -> System.out.println(scr));
}
```

CommandLine Arguments ...

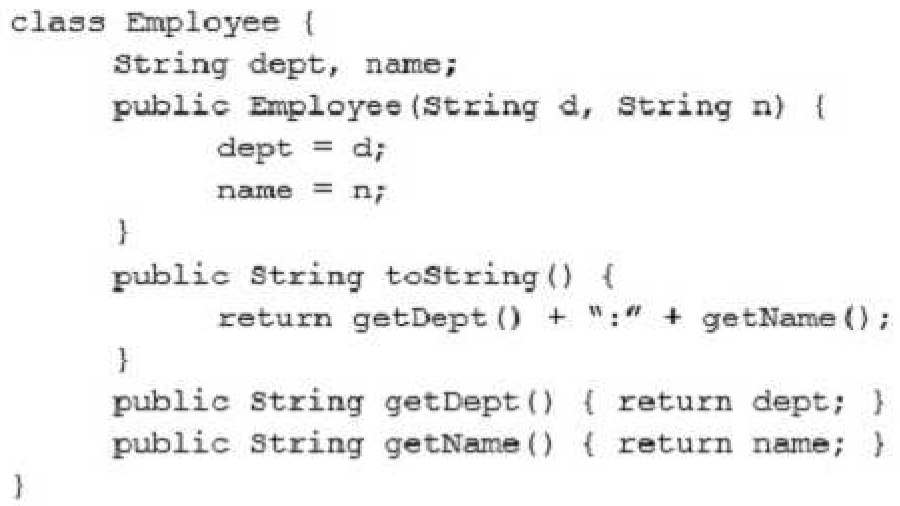
Stdin Inputs...

Result...

CPU Time: sec(s), Memory: kilobyte(s)

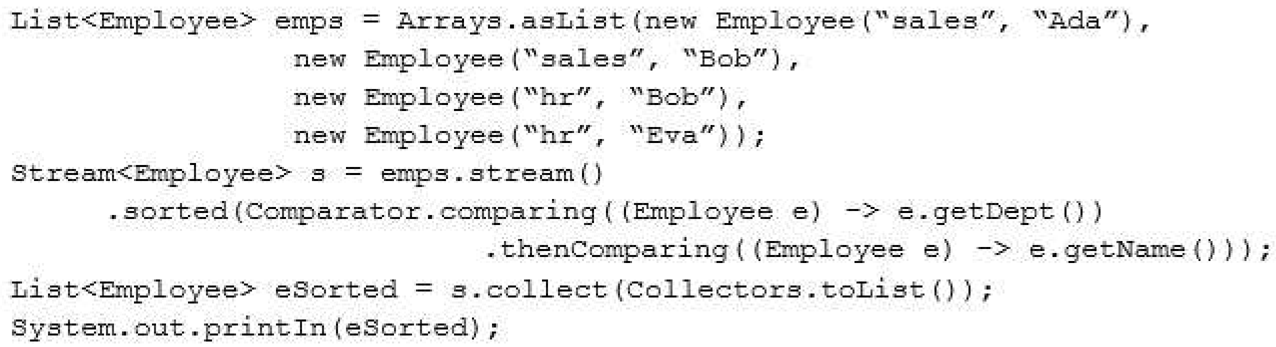
```
/Student.java:17: error: <identifier> expected
    stds.stream()
               ^
/Student.java:17: error: ';' expected
    stds.stream()
                 ^
2 errors
```

QUESTION 95
Given the definition of the Employee class:



```
class Employee {
        String dept, name;
        public Employee(String d, String n) {
                dept = d;
                name = n;
        }
        public String toString() {
                return getDept() + “:” + getName();
        }
        public String getDept() { return dept; }
        public String getName() { return name; }
}
```

and this code fragment:



```
List<Employee> emps = Arrays.asList(new Employee(“sales”, “Ada”),
                   new Employee(“sales”, “Bob”),
                   new Employee(“hr”, “Bob”),
                   new Employee(“hr”, “Eva”));
Stream<Employee> s = emps.stream()
       .sorted(Comparator.comparing((Employee e) -> e.getDept())
                              .thenComparing((Employee e) -> e.getName()));
List<Employee> eSorted = s.collect(Collectors.toList());
System.out.printIn(eSorted);
```

What is the result?

A. `[sales:Ada, hr:Bob, sales:Bob, hr:Eva]`

B. `[Ada:sales, Bob:sales, Bob:hr, Eva:hr]`
C. `[hr:Eva, hr:Bob, sales:Bob, sales:Ada]`
D. `[hr:Bob, hr:Eva, sales:Ada, sales:Bob]`

Correct Answer: A
Section: (none)
Explanation

Explanation/Reference:

QUESTION 96
Given the code fragments:

```
class ThreadRunner implements Runnable {
    public void run () { System.out.print (“Runnable”) ; }
}
class ThreadCaller implements Callable {
Public String call () throws Exception {return “Callable”; )
}
```

and

```
ExecutorService es = Executors.newCachedThreadPool ();
Runnable r1 = new ThreadRunner ();
Callable c1 = new ThreadCaller ();
// line n1
es.shutdown();
```

Which code fragment can be inserted at `line n1` to start `r1` and `c1` threads?

A.
```
Future<String> f1 = (Future<String>) es.submit (r1);
     es.execute (c1);
```
B.
```
es.execute (r1);
     Future<String> f1 = es.execute (c1) ;
```
C.
```
Future<String> f1 = (Future<String>) es.execute(r1);
     Future<String> f2 = (Future<String>) es.execute(c1);
```
D.
```
es.submit(r1);
     Future<String> f1 = es.submit (c1);
```

Correct Answer: D

Section: (none)
Explanation

Explanation/Reference: