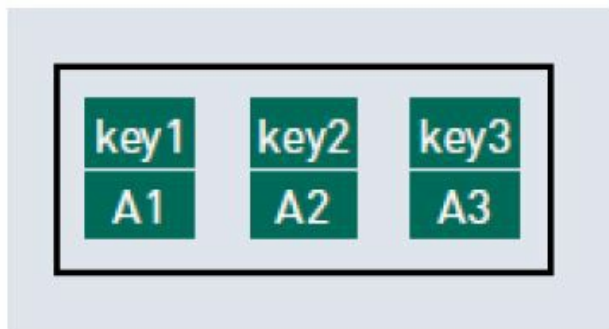


QUESTION 1 OF 10

Marked out of 3.00

Assign the appropriate data structure to the schematic diagram.



Select one:

- ☐ List
- ☐ Stack
- ☐ Set
- ☐ Map

The correct answer is: Map

MASTERSOLUTION

QUESTION 2 OF 10

Marked out of 3.00

Which statement is **false** regarding the following program fragment:

```
1 Book b1 = new book ("Stephen King", "It");  
2 Book b2 = new book ("Stephen King", "It");  
3 System.out.println(b1 == b2);
```

Select one:

- ☐ In line three it is checked whether the two variables, b1 and b2, refer to the same objects.
- ☐ The console displays *false*.
- ☐ b1 and b2 do not reference the same object.
- ☐ In line three it is checked whether objects b1 and b2 have the same content.

The correct answer is: In line three it is checked whether objects b1 and b2 have the same content.

QUESTION 3 OF 10

Marked out of 3.00

Why import external packages?

Select one:

- ☐ So that libraries of other developers can be integrated into your own program
- ☐ So that externally developed packages are no longer tested
- ☐ To avoid the reuse of source code
- ☐ To provide the program with as large an API as possible

The correct answer is: So that libraries of other developers can be integrated into your own program

MASTERSOLUTION

QUESTION 4 OF 10

Marked out of 3.00

How do you move files in Java?

Select one:

- ☐ With the method shift() of the class File
- ☐ With the method move() of the class File
- ☐ With the method renameTo of the class File
- ☐ By deleting and recreating the file

The correct answer is: With the method renameTo of the class File

QUESTION 5 OF 10

Marked out of 3.00

Which method can be used to find out the position where a word is contained in a string?

Select one:

- ☐ contains
- ☐ replace
- ☐ lastIndexOf
- ☐ substring

The correct answer is: lastIndexOf

MASTERSOLUTION

QUESTION 6 OF 10

Marked out of 3.00

Which code convention is **wrong**?

Select one:

- ☐ Package names always start with a capital letter.
- ☐ Class variables are capitalized completely and words are separated by an underscore.
- ☐ Method names are formulated as verbs.
- ☐ Method names always start small.

The correct answer is: Package names always start with a capital letter.

QUESTION 7 OF 10

Marked out of 3.00

How is a multidimensional array created?

Select one:

- ☐ `int[] array = new int{{2,3,4},{10,12,14}};`
- ☐ `int[] array = new int[] int[]{{2,3,4},{10,12,14}};`
- ☐ `int[] array = new int[][]{{2,3,4},{10,12,14}};`
- ☐ `int[] int[] array = new int[][]{{2,3,4},{10,12,14}};`

The correct answer is:

`int[] array = new int[][]{{2,3,4},{10,12,14}};`

MASTERSOLUTION

QUESTION 8 OF 10

Marked out of 6.00

What functions does a stack have?

Name the three most important methods for this data structure and describe their function.

- Pop / remove: Remove the top element of the stack
- Push / put down: Placing an element on top of the stack
- Peek / read: Read the top element of the stack without removing it

The following answers do not describe the most important methods and are therefore only rewarded with half of the score:

- Search: Find the topmost element that corresponds to the search object
- Empty: Testing whether the stack is empty

QUESTION 9 OF 10

Marked out of 8.00

Complete the following source code by assigning the numbers to the letters.

MASTERSOLUTION

```
-1-  
-2-  
public class OnlineShop {  
    private static -3- = Logger.getRootLogger();  
    public static void main(String[] args) {  
        -4- = new Scanner(System.in);  
        System.out.print( "Please select a test case: " );  
        int input = s.nextInt();  
        switch (input) {  
            case 1:  
                Object o = new Customer("Ralf", "Hermann", "m",  
                                         "May 15th, 1978, new Cart()");  
                logger.debug(o.toString());  
                break;  
            case 2:  
                Customer c1 = new Customer("Ralf", "Herm");  
                Customer c2 = new Customer("Ralf", "Hermann");  
                Customer c3 = new Customer("Klaus", "Hermann");  
                -5-  
                logger.debug(c2.compareTo(c3));  
                break;  
            case 3:  
                Customer c4 = new Customer("Ralf", "Hermann");  
                Customer c5 = c4.clone();  
                logger.debug(c4.equals(c5));  
                break;  
        }  
    }  
}  
  
/*  
A: Logger logger  
B: import java.util.scanner;  
C: Scanner s  
D: logger.debug(c1.compareTo(c2));  
E: import org.apache.log4j.*;  
  
*/
```

A: 3
B: 2
C: 4
D: 5
E: 1

Alternative:

A: 3
B: 1

MASTERSOLUTION

C: 4
D: 5
E: 2

QUESTION 10 OF 10

Marked out of 10.00

Can the toString() method be overloaded in any class? Justify your answer.

No, the toString() method cannot be overloaded in any class. The toString() method is a predefined method inherited from the Object class in Java. It is declared as public String toString() in the Object class, and it provides a default string representation of an object.

The toString() method is used to convert an object to a string for debugging, logging, or displaying purposes. By default, it returns a string containing the class name, an "@" symbol, and the hash code of the object.

However, this default implementation may not provide meaningful information about the object's state and attributes.

To provide a more useful and customized string representation of an object, the toString() method can be overridden in a class.

By overriding the toString() method, you can define how the object's state should be represented as a string.

Overloading the toString() method is not possible because the signature of the toString() method is already defined in the Object class as public String toString(). Overloading refers to the process of creating multiple methods with the same name but different parameter lists. Since the toString() method already has a specific signature, attempting to overload it with different parameters would result in a compilation error.

To summarize, while you can override the toString() method in a class to provide a customized string representation of an object, you cannot overload the toString() method with different parameter lists. The toString() method has a predefined signature in the Object class that cannot be changed.