≡ OCA / OCP Java SE 8 Programmer Practice Tests

Chapter 22
Localization

THE OCP EXAM TOPICS COVERED IN THIS PRACTICE TEST INCLUDE THE FOLLOWING:

- ✓ **Localization**
- Read and set the locale by using the Locale object
- Create and read a Properties file
- Build a resource bundle for each locale and load a resource bundle in an application

1. Which is not a locale?

   1. Cultural region
   2. Geographical region
   3. Political region
   4. Time zone region

2. When localizing an application, which type of data varies in presentation depending on locale?

   1. Currencies
   2. Dates
   3. Both
   4. Neither

3. How do you find out the locale of the running program?

   1. `Locale.get("default")`
   2. `Locale.get(Locale.DEFAULT)`
   3. `Locale.getDefault()`
   4. None of the above

4. If your application has all town names in a single file named `strings.properties`, what is the most specific process that has been implemented?

   1. Internationalization
   2. Localization
   3. Specialization
   4. Translation

5. Which interfaces does `Properties` implement?

3. `Map`

   1. III
   2. I and II
   3. I and III
   4. II and III

6. Which filename extension can hold a `String` property value in a resource bundle?

   1. `.java`
   2. `.properties`
   3. Both of the above
   4. Neither of the above

7. How long will the effects of calling `Locale.setDefault()` be active assuming no other calls to that method are made?

   1. Until the end of the method
   2. Until the program exits
   3. Until the next reboot of the computer
   4. None of the above. It persists even past a reboot.

8. Given this properties file used to load the `Properties` object `props` and this code snippet, what is the output?

```
mystery=bag
type=paper
18:  System.out.print(props.getProperty("mystery"));
19:  System.out.print(" ");
20:  System.out.print(props.getProperty("more"));
```

   1. `bag`
   2. `bag null`
   3. `bag ?`
   4. This code throws a runtime exception on line 20.

9. Fill in the blanks to complete the following code for a Java resource bundle.

```
public class Flights_en extends _____ {
   protected Object[][] _____() {
      return new Object[0][0];
   }
}
```

   1. `JavaResourceBundle, getContents`
   2. `JavaResourceBundle, getProperties`
   3. `ListResourceBundle, getContents`
   4. `ListResourceBundle, getProperties`

10. Which of the following shows a valid `Locale` format for the language Hindi and the country India?

   1. `hi_IN`
   2. `HI_in`
   3. `in_HI`
   4. `IN_hi`

11. If the key `purple` is in all four of these files, which file will the following code use for the resource bundle?

```
Locale.setDefault(new Locale("en", "US"));
ResourceBundle rb = ResourceBundle.getBundle("Colors");
rb.getString("purple");
```

   1. `Colors.class`

2. `Colors.properties`

3. `Colors_en_US.class`

4. `Colors_en_US.properties`

12. What is the output of the following?

```
package counter;
import java.util.*;

public class CountResource extends ListResourceBundle {
    private int count = 0;

    @Override
    protected Object[][] getContents() {
        return new Object[][] { { "count", count++ } };
    }
    public static void main(String[] args) {
        ResourceBundle rb = ResourceBundle.getBundle("counter.CountRes
        System.out.println(rb.getObject("count") + " " + rb.getObject
    }
}
```

1. `0 0`

2. `0 1`

3. The code does not compile.

4. The code compiles but throws an exception at runtime.

13. Which of the following shows a valid `Locale` format?

1. `en`

2. `US`

3. `US_en`

4. None of the above

14. Which filename extension can define a `LocalDateTime` property value in a resource bundle?

1. `.java`

2. `.properties`

3. Both of the above

4. Neither of the above

15. What happens if you run this code with no resource bundles available?

```
ResourceBundle rb = ResourceBundle.getBundle("ghost.None");
```

1. It creates a resource bundle with no key/value pairs.

2. It runs without issue because the resource bundle is only searched for when getting the first key.

3. It throws a `MissingResourceException`.

4. None of the above

16. What is the result of the following?

```
Map<String, String> map = new TreeMap<>();
map.put("tool", "hammer");
map.put("problem", "nail");

Properties props = new Properties();      // p1
map.forEach((k,v) -> props.put(k,  v));   // p2

String t = props.get("tool");             // p3
String n = props.get("nail");
System.out.println(t + " " + n);
```

1. `hammer nail`

2. The code does not compile due to line p1.

3. The code does not compile due to line p2.

4. The code does not compile due to line p3.

17. Which filename extension can hold a `LocalDateTime` property key in a resource bundle?

    1. `.java`
    2. `.properties`
    3. Both of the above
    4. Neither of the above

18. If the key `purple` is in all four of these files, which file will the following code use for the resource bundle?

    ```
    Locale.setDefault(new Locale("en", "US"));
    ResourceBundle rb = ResourceBundle.getBundle("Colors");
    rb.getString("purple");
    ```

    1. `Colors_en.class`
    2. `Colors_en.properties`
    3. `Colors_US.class`
    4. `Colors_US.properties`

19. Fill in the blank so the code correctly compiles and creates a `Locale`.

    ```
    Locale loc = Locale._____;
    ```

    1. `get("Italian")`
    2. `get(Locale.ITALIAN)`
    3. `getLocale("Italian")`
    4. None of the above

20. What is the result of the following?

    ```
    Map<Object, Object> map = new TreeMap<>();
    map.put("tool", "hammer");
    map.put("problem", "nail");

    Properties props = new Properties();        // p1
    map.forEach((k,v) -> props.put(k,  v));     // p2

    String t = props.getProperty("tool");       // p3
    String n = props.getProperty("problem");
    System.out.println(t + " " + n);
    ```

    1. `hammer nail`
    2. The code does not compile due to line p1.
    3. The code does not compile due to line p2.
    4. The code does not compile due to line p3.

21. What is the output of the following?

    ```
    1:   package keyboard;
    2:   import java.util.*;
    3:
    4:   public class Type {
    5:       protected Object[][] getContents() {
    6:           return new Object[][] { { "keys", new ArrayList<String>(
    7:       }
    8:       public static void main(String[] args) {
    9:           ResourceBundle rb = ResourceBundle.getBundle("keyboard.Ty
    10:          List<String> keys = (List) rb.getObject("keys");
    11:          keys.add("q");
    12:          keys.add("w");
    13:          keys.add("e");
    14:          keys.add("r");
    15:          keys.add("t");
    16:          keys.add("y");
    17:          System.out.println(((List) rb.getObject("keys")).size())
    18:      }
    19:  }
    ```

    1. `0`
    2. `6`
    3. The code does not compile.
    4. The code compiles but throws an exception at runtime.

22. How many lines does the following print out?

```
3:  Locale.setDefault(Locale.KOREAN);
4:  System.out.println(Locale.getDefault());
5:  Locale.setDefault(new Locale("en", "AU"));
6:  System.out.println(Locale.getDefault());
7:  Locale.setDefault(new Locale("EN"));
8:  System.out.println(Locale.getDefault());
```

  1. None; it does not compile.

  2. One followed by an exception

  3. Two followed by an exception

  4. All three

23. Given this properties file used to load the `Properties` object `props` and this code snippet, what is the output?

```
mystery=bag
type=paper

18:  System.out.print(props.getProperty("mystery", "?"));
19:  System.out.print(" ");
20:  System.out.print(props.getProperty("more", "?"));
```

  1. `bag`

  2. `bag null`

  3. `bag ?`

  4. This code throws a runtime exception on line 20.

24. Given the following four properties files, what does this code print?

Cars_en.properties	Cars_fr.properties
engine=engine horses=241	engine=moteur

Cars_en_US.properties	Cars_fr_FR.properties
country=US	country=France

```
Locale.setDefault(new Locale("en", "US"));
ResourceBundle rb = ResourceBundle.getBundle(
    "Cars", new Locale("fr", "FR"));
System.out.println(rb.getString("country") + " "
    + rb.getString("engine"));
```

  1. `France engine`

  2. `France moteur`

  3. `France null`

  4. The code throws an exception at runtime.

25. Given the four properties files in question 24, what does this code print?

```
Locale.setDefault(new Locale("en", "US"));
ResourceBundle rb = ResourceBundle.getBundle(
    "Cars", new Locale("fr", "CA"));
System.out.println(rb.getString("engine") + " "
    + rb.getString("horses"));
```

  1. `engine 241`

  2. `moteur 241`

  3. `moteur null`

  4. The code throws an exception at runtime.

26. Given the four properties files in question 24, what does this code print?

```
Locale.setDefault(new Locale("fr", "CA"));
ResourceBundle rb = ResourceBundle.getBundle(
    "Cars", new Locale("en", "CA"));
System.out.println(rb.getString("engine") + " "
    + rb.getString("horses"));
```

1. `engine 241`

2. `moteur 241`

3. `moteur null`

4. The code throws an exception at runtime.

27. Which statement about `ListResourceBundle` is true?

   1. A disadvantage over properties files is that you cannot create the value at runtime.
   2. `Names-fr.java` is a bad implementation class name.
   3. Values of type `Integer` are not allowed.
   4. None of the above

28. If the key `red` is in all four of these files, which file will the following code use for the resource bundle?

```
Locale loc = new Locale("zh", "CN");
Locale.setDefault(new Locale("en", "US"));
ResourceBundle rb = ResourceBundle.getBundle("Colors", loc);
rb.getString("red");
```

   1. `Colors_CN.properties`
   2. `Colors_en.properties`
   3. `Colors_US.properties`
   4. `Colors_zh.properties`

29. What is the output of the following?

```
package counter;
import java.util.*;

public class PropertyCounter extends ListResourceBundle {
    private int count = 0;
    @Override
    protected Object[][] getContents() {
        return new Object[][] {{ "count", new PropertyCounter() }};
    }
    public int getCount() {
        return count++;
    }
    public static void main(String[] args) {
        ResourceBundle rb = ResourceBundle.getBundle("counter.Property
        PropertyCounter obj = (PropertyCounter) rb.getObject("count")
        System.out.println(obj.getCount() + " " + obj.getCount());
    }
}
```

1. `0 0`

2. `0 1`

3. The code does not compile.

4. The code compiles but throws an exception at runtime.

30. What is the output of the following?

```
1:   package keyboard;
2:   import java.util.*;
3:
4:   public class Type extends ListResourceBundle {
5:       protected Object[][] getContents() {
6:           return new Object[][] { { "keys", new ArrayList<String>(
7:       }
8:       public static void main(String[] args) {
9:           ResourceBundle rb = ResourceBundle.getBundle("Type");
10:          List<String> keys = (List) rb.getObject("keys");
11:          keys.add("q");
12:          keys.add("w");
13:          keys.add("e");
14:          keys.add("r");
15:          keys.add("t");
16:          keys.add("y");
17:          System.out.println(((List) rb.getObject("keys")).size())
```
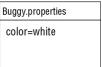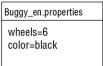
```
18:    }
19: }
```

---

1. 0

2. 6

3. The code does not compile.

4. The code compiles but throws an exception at runtime.

31. Given the following snippets of resource bundles from when we compiled the application, what is the result of the following?

Buggy.java	Buggy.properties

`getContents:`
 	
`  return new Object[][]`
`    {{ "wheels", "4" }};`
	color=white

Buggy_en.java	Buggy_en.properties

`getContents:`
 	
`  return`
`    new Object[0][0];`
	wheels=6
	color=black

```
Locale.setDefault(new Locale("en", "US"));
ResourceBundle rb = ResourceBundle.getBundle("Buggy");
System.out.println(rb.getString("wheels"));
```

1. `null`

2. `4`

3. `6`

4. The code throws an exception at runtime.

32. Given the snippets of resource bundles in question 31 from when we compiled the application, what is the result of the following?

```
Locale.setDefault(new Locale("en"));
ResourceBundle rb = ResourceBundle.getBundle("Buggy");
System.out.println(rb.getString("color"));
```

1. `null`

2. `black`

3. `white`

4. The code throws an exception at runtime.

33. Given the snippets of resource bundles in question 31 from when we compiled the application, what is the result of the following?

```
Locale.setDefault(new Locale("zh"));
ResourceBundle rb = ResourceBundle.getBundle("Buggy");
System.out.println(rb.getString("wheels"));
```

1. `null`

2. `4`

3. `6`

4. The code throws an exception at runtime.

34. If the key red is in all three of these files, which file will the following code use for the resource bundle?

```
Locale loc = new Locale("zh", "CN");
Locale.setDefault(new Locale("en", "US"));
ResourceBundle rb = ResourceBundle.getBundle("Colors", loc);
rb.getString("red");
```

1. `Colors_en.properties`

2. `Colors.properties`

3. `Red_en.properties`

4. None of the above. It will throw a `MissingResourceException`.

35. Which can fill in the blank in this code?

```
Properties props = new Properties();
props._____("x");
```

1. `get`

2. `getProperty`

3. Both of the above

4. Neither of the above

36. What is the output of the following?

```
1:   package keyboard;
2:   import java.util.*;
3:
4:   public class Type extends ListResourceBundle {
5:       protected Object[][] getContents() {
6:           return new Object[][] { { "keys", new ArrayList<String>(
7:       }
8:       public static void main(String[] args) {
9:           ResourceBundle rb = ResourceBundle.getBundle("keyboard.Ty
10:          List<String> keys = (List) rb.getObject("keys");
11:          keys.add("q");
12:          keys.add("w");
13:          keys.add("e");
14:          keys.add("r");
15:          keys.add("t");
16:          keys.add("y");
17:          System.out.println(((List) rb.getObject("keys")).size())
18:      }
19:  }
```

1. `0`

2. `6`

3. The code does not compile.

4. The code compiles but throws an exception at runtime.

37. What is the result of the following?

```
Map<String, String> map = new TreeMap<>();
map.put("tool", "hammer");
map.put("problem", "nail");

Property props = new Property();           // p1
map.forEach((k,v) -> props.put(k, v));     // p2

String t = props.getProperty("tool");      // p3
String n = props.getProperty("nail");
System.out.println(t + " " + n);
```

1. `hammer nail`

2. The code does not compile due to line p1.

3. The code does not compile due to line p2.

4. The code does not compile due to line p3.

38. What is the output of the following?

```
package counter;
import java.util.*;

public class CountResource extends ListResourceBundle {
    private int count = 0;

    @Override
    protected Object[][] getContents() {
        return new Object[][] { { "count", count++ } };
    }
    public static void main(String[] args) {
        ResourceBundle rb = new ResourceBundle("counter.CountResource
        System.out.println(rb.getObject("count") + " " + rb.getObject
    }
}
```

1. `0 0`

  2. 0 1

3. The code does not compile.

4. The code compiles but throws an exception at runtime.

39. Given the following two properties files in the pod package, what does the following class output?

```
pod.container.properties
name=generic
number=2

pod.container_en.properties
name=Docker
type=container

package pod;
import java.util.*;
public class WhatKind {
    public static void main(String[] args) {
        Locale.setDefault(new Locale("en"));
        ResourceBundle rb = ResourceBundle.getBundle("pod.container")
        String name = rb.getString("name");
        String type = rb.getString("type");
        System.out.println(name + " " + type);   }
}
```

1. `Docker container`

2. `generic container`

3. `generic null`

4. None of the above

40. If the key `red` is in all three of these files, which file will the following code use for the resource bundle?

```
Locale loc = new Locale("zh", "CN");
Locale.setDefault(new Locale("en", "US"));
ResourceBundle rb = ResourceBundle.getBundle("Colors", loc);
rb.getString("red");
```

1. `Colors_EN.properties`

2. `Colors_ZH.properties`

3. `Red_EN.properties`

4. None of the above. It will throw a `MissingResourceException`.