Spring 2024-2025 CSSE 220

## CSSE 220 – Object-Oriented Software Development Rose-Hulman Institute of Technology

## Worksheet 09

| Name           | ne (Print):  | Section:                |
|----------------|--|-------------------------|
| 1.             | Define the Encapsulation:<br>Answer:                                 |                         |
| 2.             | Select the correct statement   |                         |
|                | 1) Classes are blueprints and interfaces are contracts               |                         |
|                | 1) Classes are contracts and interfaces are blueprints               |                         |
| 3.             | True/False Interface specifies <b>what</b> a class can do without to | elling <b>how</b> to do |
| 4.             | Name 2 benefits of interfaces:                                       |                         |
|                | 1)   |                         |
|                | 2)   |                         |
| 5.             | Complete the code  |                         |
| 1<br>2<br>3    | publicAnimal {   |                         |
| 3<br>4<br>5    | <pre>public void animalSound();</pre>                                |                         |
| 6<br>7<br>8    | class Dog Animal {   |                         |
| 9              | {  |                         |
| 11<br>12<br>13 | }  |                         |

14 }

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- 6. Write class or interface next to the statements:
  - 1) \_\_\_\_\_ can create objects
  - 2) \_\_\_\_\_ cannot create an object
  - 3) \_\_\_\_\_ contains methods with implementation
  - 4) \_\_\_\_\_ contains empty methods
- 7. the interfaces can be extended by using the word \_\_\_\_\_
- 8. True/False Class can implement many interfaces
- 9. True/False Class can extend many classes
- 10. True/False Interface can extend many interfaces
- 11. You have two interfaces Animal and Person. You want to extend person to animal

```
1
2
3
4 public void talk();
5 }
```

- 12. Interface reference (Person dog = new Dog() ) vs Class Reference (Dog dog = new Dog() )
  - 1) \_\_\_\_\_: provides access to all methods in the class Dog
  - 2) \_\_\_\_\_\_: only provide access to methods defined in the interface Person

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