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A-4

Part (a)

```
public class SubstringChecker implements Checker
{
    private String substr;

    public SubstringChecker(String s)
    {
        substr = s;
    }

    public boolean accept(String text)
    {
        return text.indexOf(substr) >= 0;
    }
}
```

Part (b)

```
public class AndChecker implements Checker
{
    private Checker checker1, checker2;

    public AndChecker(Checker c1, Checker c2)
    {
        checker1 = c1;
        checker2 = c2;
    }

    public boolean accept(String text)
    {
        return checker1.accept(text) && checker2.accept(text);
    }
}
```

Part (c)

```
yummyChecker = new AndChecker(new NotChecker(aChecker), new NotChecker(kChecker));
```

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2008 SCORING GUIDELINES**

Question 4: Checker Objects (Design)

Part A:	SubstringChecker	4 points
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- +1/2 `class SubstringChecker implements Checker`
- +1/2 declare private instance variable of type `String`
- +1 constructor
 - +1/2 `SubstringChecker(String goalString)`
 - +1/2 initialize instance variable to parameter
- +2 accept method
 - +1/2 `public boolean accept(String text)`
 - +1 1/2 determine whether to accept
 - +1/2 attempt to find instance variable in `text`
(either call `indexOf`, `contains`, or compare with substrings)
 - +1 return correct boolean value in all cases

Part B:	AndChecker	4 points
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- +1/2 `class AndChecker implements Checker`
- +1/2 declare private instance variable(s) capable of storing two `Checker` objects
- +1 constructor
 - +1/2 `AndChecker(Checker c1, Checker c2)`
 - +1/2 initialize instance variable(s) to parameters
- +2 accept method
 - +1/2 `public boolean accept(String text)`
 - +1 1/2 determine whether to accept
 - +1/2 attempt to call `accept(text)` on both stored `Checkers`
 - +1 return correct boolean value in all cases

Part C:	yummyChecker	1 point
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- +1 correctly assign `yummyChecker`