Program : NumberGuessingGame.java

Problem:

Ask the user to input a number greater than 10 and less than 20
While the user input is not greater than 10 and less than 20{
  Ask the user to re-enter a number greater than 10 and less than 20
}
Print out the number the user entered
Create a number to store the guess number, it's initial value should be -1
Do{
  While the guess number is -1{
    Use a for loop to go from 10 to 20{
      Ask Yes/No if their number is the current index
        While their input is not yes or no{
          Ask the user to re-enter yes/no
        }
        If they say yes{
          Store the index in the guess number
          Break out of the loop
        }
    }
    If the guess number is -1{
      Print it has to be a number between 10 and 20
    }
  }
  If the guess number is not equal to the input number{
    Print the guess number is not what the user told you earlier
    Set guess number to -1
  }

}while the guessed number is not equal to the inputted number
Print the input number and guess number

Example output:

```
Enter a number between 10 and 20: 154
Invalid entry, try again: 11
You entered 11
Is your number 10?(yes/no): Na
Invalid entry, try again(yes/no):No
Is your number 11?(yes/no): no
Is your number 12?(yes/no): no
Is your number 13?(yes/no): no
Is your number 14?(yes/no): no
Is your number 15?(yes/no): no
Is your number 16?(yes/no): no
Is your number 17?(yes/no): no
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Is your number 18?(yes/no): no
Is your number 19?(yes/no): no
Is your number 20?(yes/no): no
Your number has to be between 10 and 20, I'll guess again
Is your number 10?(yes/no): yes
That is not the number you said earlier, I'll guess again
Is your number 10?(yes/no): no
Is your number 11?(yes/no): yes
Your number was 11 and my guess was 11
```

Program: UMLDiagrams.java
Problem:
Create 20 UML diagrams modeling real world objects around you. 5 or more of them should compose other objects you have modeled as data fields or method arguments/return type. Do not include getters/setters for data fields. You will notice lines between diagrams online but don't worry about drawing lines between your UML diagrams.

Create a bare-bones implementation of the 20 objects you modeled. You should have all the fields and methods from your UML diagram, but you do not have to write any code in the methods themselves.