

1 Short Answer

1. `ArrayList<Integer> list = new ArrayList<>();`
2. `list.add(0); list.add(1); list.add(2); list.add(3); list.add(4); list.add(5);`
3. `ArrayList<String> names = new ArrayList<>();`
4. `names.add("Bob"); names.add("Joe"); names.add("Steve"); names.add("Superman");`
5. `names.add(0, "Clay");`
6. `System.out.println(names);`
7. `names.remove(1);`
8. `names.remove("Steve");`
9. `System.out.println(names.size());`
10. `Music song0 = new Music ("Barbie Girl", "Aqua", 1997);`
11. `@Override //optional, but suggested`
`public String toString() {`
 `return year + ", " + title + ", " + artist;`
`}`
12. `try {`
 `PrintWriter pw = new PrintWriter (new File ("out.txt"));`
`} catch (IOException e) {`
 `System.out.println(e.getMessage());`
 `System.exit(-1);`
`}`
13. (Extension on last question)
`try {`
 `PrintWriter pw = new PrintWriter (new File ("out.txt"));`
 `for (int i = 0; i < fileContents.size(); i++)`
 `pw.println(fileContents.get(i));`
 `pw.close();`
`} catch (IOException e) {`
 `System.out.println(e.getMessage());`
 `System.exit(-1);`
`}`
14. `try {`
 `Scanner reader = new Scanner (new File ("in.txt"));`
`} catch (IOException e) {`
 `System.out.println("Cannot read in.txt");`
 `System.exit(-1);`
`}`
15. (Extension of last question)

```

try {
    Scanner reader = new Scanner (new File ("in.txt"));
    ArrayList <String> lines = new ArrayList<String>();
    while (reader.hasNextLine())
        lines.add(reader.nextLine());
} catch (IOException e) {
    System.out.println("Cannot read in.txt");
    System.exit(-1);
}

```

16. Scanner keys = new Scanner (System.in);

2 Tracing

1. Make: Ford Model: Coupe Year: 1936 Nickname: Doc Hudson Mileage: 150000.0
2. 1950
3. Lightning McQueen
Tow Mater
Doc Hudson
Mack
4.
 - Missing "new File" part of Scanner declaration. Should be `Scanner reader = new Scanner (new File (fileName));`.
 - For loop goes one iteration too long (should either be `for (int i = 0; i < carArray.length; i++)` or `for (int i = 0; i <= carArray.length -1; i++)`).
 - Missing extra `reader.nextLine()`; call after `double miles = reader.nextDouble()`;
 - Missing `nickName` part of the Car object declaration. Should be `carArray[i] = new Car (make, model, year, nickName, miles)`;
 - Didn't close writer, so my file was never written.