# **Main Menu Class**

|  | **first screen** | **second screen** |
| --- | --- | --- |
| **header** | welcome | welcome, *name* |
| **text** | In this CAI (Computer-Assisted Instruction) application, you will learn all about classes and objects. In the past, we have learned about data types such as String, int, double, and boolean, but now you will be able to create and use your own data type (an object)! You will explore the concept of Object-Oriented Programming (OOP), and how using objects in your code will be very useful. | In this CAI (Computer-Assisted Instruction) application, you will learn all about classes and objects. In the past, we have learned about data types such as String, int, double, and boolean, but now you will be able to create and use your own data type (an object)! You will explore the concept of Object-Oriented Programming (OOP), and how using objects in your code will be very useful. |
| **highlighted instructions** | Before we get started, create your avatar! | Let’s start learning! |

# **Education Class**

\*\*\* **bolded** text will pop open a dialog box when clicked

| **slide** | **text** |
| --- | --- |
| 0 | Before we got started, you customized your own avatar. Your avatar has its own unique attributes: its name is *name,* its age is *age,* its gender is *gender,* and its hair color is *hair color.* What if I told you that you just used your first object! By pressing the done button, you created an **instance** of the Avatar class, an object. |
| 1 | Let's look at the code that creates your avatar:    If we break down the syntax of this line of code..   * we are declaring the **data type** of the variable as Avatar * the variable is called *myAvatar* * *myAvatar* is equal to an **instance** of the avatar class * inside the brackets are the attributes of the object, called **instance variables**   Try to familliarize yourself with these terms. You can access a glossary through the menu bar at the top. |
|  | An object can be |

What do I need to teach?

* What are objects
* What can you do with objects
* What are classes
* Methods in classes
* Syntax to code objects
  + Short cuts
* Syntax to get or set objects

# **Activity Class**

| **customer #** | **order** | **answer** |
| --- | --- | --- |
| 0 | Your first customer wants a simple vanilla cake with white vanilla frosting for their birthday party. They would like 2 layers of cake, and lots of sprinkles! (Robert) | Cake robert = new Cake (“vanilla”, null, “vanilla”, “white”, 2, “birthday party”, true) |
| 1 | For their 50th anniversary, your second customer wants a caramel and vanilla cake with white vanilla frosting. Since they’ll be expecting many guests, they want 3 layers of cake. They specified that they want lots of gold sprinkles! (Mia) | Cake mia = new Cake (“caramel”, “vanilla”, “vanilla”, “white”, 3, “anniversary party”, true) |
| 2 | Your next customer wants a chocolate cake with green icing. They do not want sprinkles, and they want only 1 layer of cake (Joe) | Cake joe = new Cake(“chocolate”, null, null, |