Interfacing

In order to understand the principles and build successful computer interfaces, we need to understand the components of a task in terms of human-computer interaction (HCI). This process is called task analysis. To solve the problem, we need to break down the process into smaller tasks.

From the interface, it is possible to determine how the functionality is applied. We could approach it by setting the functionality, which then leads us to determine the input. We need to consider the input, which is the output. The output is the interface, and the interface is the function.

So we have two classes and two problems — how do the classes connect? The two problems are: how do you identify the interface? And how do you identify the classes?

In the second problem, we could use a graphical interface. A graphical interface can be a more intuitive way to understand the problem.

3.5 Building Your Own Classes

Building your own classes is a fundamental concept in object-oriented programming. The purpose of building your own classes is to make the code more modular and reusable. To build a class, you need to define its properties and methods.

The diagram below shows a possible class hierarchy for a simple calculator application. This class diagram illustrates the relationship between classes and their methods. The class diagram is a visual representation of the class hierarchy.

The purpose of this exercise is to introduce a new language we will develop in the next chapter. The new language is called Java. It is an object-oriented programming language designed for developing software applications and enterprise software systems.