packages and import statements:

In Java, packages and import statements are used to organize and manage classes and other types in your code. Packages provide a way to group related classes and avoid naming conflicts, while import statements allow you to access classes and other elements from different packages without having to use their fully qualified names every time.

Here's an explanation of packages and import statements with two code examples:

Example 1: Creating and Using Packages

Let's say you want to create a simple program that calculates the area of a rectangle. You can organize your code into packages as follows:

```java
// Define a package named 'geometry'
package geometry;

// Define a class 'Rectangle' within the 'geometry' package
public class Rectangle {
    private double length;
    private double width;

    public Rectangle(double length, double width) {
        this.length = length;
        this.width = width;
    }

    public double calculateArea() {
        return length * width;
    }
}
```

In the above code, we've created a package named "geometry" and a class called "Rectangle" within that package. Now, let's create another class in a different package to use this "Rectangle" class:

```java
// Import the 'Rectangle' class from the 'geometry' package
import geometry.Rectangle;

public class Main {
    public static void main(String[] args) {
```

```
        // Create a rectangle object
        Rectangle rectangle = new Rectangle(5.0, 3.0);

        // Calculate and print the area
        System.out.println("Area of the rectangle: " + rectangle.calculateArea());
    }
}
```

In the above code, we import the "Rectangle" class from the "geometry" package using the `import` statement. This allows us to use the "Rectangle" class in our "Main" class without specifying the fully qualified name every time.

Example 2: Using Wildcard Import

You can also use a wildcard import to import all classes from a package:

```java
// Import all classes from the 'geometry' package
import geometry.*;

public class Main {
    public static void main(String[] args) {
        // Create a rectangle object
        Rectangle rectangle = new Rectangle(5.0, 3.0);

        // Calculate and print the area
        System.out.println("Area of the rectangle: " + rectangle.calculateArea());
    }
}
```

In this example, we use `import geometry.*` to import all classes from the "geometry" package. This is convenient when you have multiple classes in a package and want to use them all without listing each one individually.

Packages and import statements help you organize and manage your Java code effectively, making it easier to maintain and reuse classes across different parts of your program.