

The screenshot shows the Eclipse IDE interface with the following components:

- Package Explorer**: Shows the project structure with a node for `bikeproject`.
- BikeTest.java**: The active editor window containing Java code for interfaces and a class.
- Task List**: An empty list.
- Outline**: A tree view showing the class hierarchy:
 - `bikeproject`
 - `BikeParts`
 - `MAKE : String`
 - `getHandleBars() : String`
 - `setHandleBars(String) : void`
 - `getTyres() : String`
 - `setTyres(String) : void`
 - `getSeatType() : String`
 - `setSeatType(String) : void`
 - `MountainParts`
 - `TERRAIN : String`
 - `getSuspension() : String`
 - `setSuspension(String) : void`
 - `getType() : String`
 - `setType(String) : void`
 - `RoadParts`
 - `TERRAIN : String`
 - `getTyreWidth() : String`
 - `setTyreWidth(String) : void`
 - `getPostHeight() : String`
 - `setPostHeight(String) : void`
- Problems**, **Javadoc**, **Declaration**, **Console**: Standard Eclipse toolbars.
- Console**: Displays the output: `<terminated> BikeTest [Java Application] C:\Users\rjana\p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_22.0.2.v20240802-1626\jre\bin\javaw.exe (17 Aug 2024, 12:00:45 am – 12:00:45 am) [pid: 19980]` and `Post Height: 20`.

The screenshot shows the Eclipse IDE interface with the following components:

- Package Explorer**: Shows the project structure with a tree view of files like `bikeproject`, `dharshinij`, `jav_pro`, `javapro`, and `orcale`.
- BikeTest.java**: The active editor window containing Java code. The code defines three classes: `Bike`, `MountainBike`, and `RoadBike`. The `Bike` class has methods for `getTyres` and `setTyres`. The `MountainBike` class extends `Bike` and implements `MountainParts`, adding methods for `suspension` and `type`. The `RoadBike` class extends `Bike` and implements `RoadParts`, adding methods for `tyreWidth` and `postHeight`. A `BikeTest` driver class is provided to test the implementation.
- Task List**: A panel on the right showing a search bar and a list of tasks.
- Outline**: A panel on the right showing the class hierarchy and member variables and methods for `BikeParts` and `MountainParts`.
- Console**: The bottom panel displaying the output of the application's execution, showing the printed value "Post Height: 20".

```
public String getTyres() { return tyres; }
public void setTyres(String newValue) { tyres = newValue; }
public String getSeatType() { return seatType; }
public void setSeatType(String newValue) { seatType = newValue; }

class MountainBike extends Bike implements MountainParts {
    private String suspension, type;

    public String getSuspension() { return suspension; }
    public void setSuspension(String newValue) { suspension = newValue; }
    public String getType() { return type; }
    public void setType(String newValue) { type = newValue; }
}

class RoadBike extends Bike implements RoadParts {
    private String tyreWidth, postHeight;

    public String getTyreWidth() { return tyreWidth; }
    public void setTyreWidth(String newValue) { tyreWidth = newValue; }
    public String getPostHeight() { return postHeight; }
    public void setPostHeight(String newValue) { postHeight = newValue; }
}

// Driver class to test the implementation
public class BikeTest {
    public static void main(String[] args) {
        RoadBike bike1 = new RoadBike();
        bike1.setPostHeight("20"); // Update height to 20
        System.out.println("Post Height: " + bike1.getPostHeight());
    }
}
```

Outline View Content:

- `bikeproject`
- `BikeParts`
 - `MAKE : String`
 - `getHandleBars() : String`
 - `setHandleBars(String) : void`
 - `getTyres() : String`
 - `setTyres(String) : void`
 - `getSeatType() : String`
 - `setSeatType(String) : void`
- `MountainParts`
 - `TERRAIN : String`
 - `getSuspension() : String`
 - `setSuspension(String) : void`
 - `getType() : String`

Console Output:

```
<terminated> BikeTest [Java Application] C:\Users\rjana\p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_22.0.2.v20240802-1626\jre\bin\javaw.exe (17 Aug 2024, 12:00:45 am – 12:00:45 am) [pid: 19980]
Post Height: 20
```