**Nested Components Task**

**Activity 1: Simple Data Passing (Parent → Child using @Input)**

* Create a parent component TeacherComponent with a property:
* teacherName = "Rahul Kumar";
* Create a child component TeacherDetailComponent and display the teacher’s name sent from parent using @Input.

👉 **Expected Output**:  
Teacher Name: Rahul Kumar

**Activity 2: Passing List of Data (Parent → Child using @Input)**

* In parent CourseComponent, create a list of courses:
* courses = ["Angular", "React", "Vue"];
* Pass this list to the child component CourseListComponent.
* Use \*ngFor in child to display all courses.

👉 **Expected Output**:

* Angular
* React
* Vue

**Activity 3: Sending Event to Parent (Child → Parent using @Output)**

* In parent CounterComponent, place the child CounterButtonComponent.
* In child component, add a button Increase.
* Use @Output to send an event to the parent when the button is clicked.
* Parent should display updated count.

👉 **Expected Output**:  
Count: 1  
Click again → Count: 2

**Activity 4: Parent to Child + Child to Parent (Both Ways)**

* Parent: StudentListComponent has a list of students.
* Pass each student name to child StudentDetailComponent.
* In child, add a button Select Student.
* When clicked, send the student name back to parent using @Output.
* Parent should display: **“You selected: <student name>”**.

**Activity 5: Multiple Child Components**

* Create parent DashboardComponent.
* Add two child components:
  1. UserComponent – displays user details.
  2. NotificationComponent – shows “New message received”.
* Use parent to pass data to both children separately.

👉 **Expected Output**:

User: John

Notification: New message received

**Activity 6: Styling + Nested Components**

* Parent: ProductListComponent has product names and prices.
* Pass products to child ProductDetailComponent.
* In child, use [ngStyle] to show products with price above 1000 in **green** and below 1000 in **red**.