Angular Assignment: Building a Simple Task Manager

Objective

Create a simple task manager application where users can add tasks and mark them as complete. This application will consist of two main components: a Task Manager (Parent) component and a Task (Child) component. The Task Manager will handle the task list, while each Task component will represent an individual task.

Requirements

1. Components:

- Task Manager (Parent Component):
  - Display a list of tasks.
  - Allow the user to add a new task via an input field.
  - Pass the task to the Task component using @Input.
  - Listen for the completion of a task using @Output.

- Task (Child Component):
  - Accept a task name as an input.
  - Have a button to mark the task as complete.
  - Emit an event back to the Task Manager when the task is completed.

2. Functionality:

- The Task Manager should have an input field where users can enter a new task.
- A button to add the task to the list.
- Each task should be displayed with a completion button.
- When a task is marked as complete, it should be removed from the list.

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Step-by-Step Implementation

1. Create Components:

   - Generate a Task Manager and Task component using Angular CLI:

     ng generate component task-manager

     ng generate component task

2. Task Manager Component (task-manager.component.ts):

   - Declare a task array to hold tasks.
   - Implement methods to add tasks and handle task completion.
   - Use @Input to pass task data and @Output to handle task completion events.

3. Task Component (task.component.ts):

   - Use @Input to receive the task name.
   - Use @Output to emit an event when the task is completed.

4. App Module:

   - Ensure that both components are declared in your app.module.ts file.
   - Import FormsModule to enable two-way data binding with ngModel.

5. Run the Application:

   - Use ng serve to start your application and test the functionality.

Deliverables

- A functional Angular application that meets the above requirements.
- Properly structured code with comments explaining key parts of the implementation.

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- A brief write-up explaining how @Input and @Output were used in your application.

Additional Challenge

- Style the components using CSS to improve the user interface.

- Add functionality to edit existing tasks before marking them as complete.