# Communication Between Angular Components

## 1. Setup Project

### 1.1 Install Dependencies

1. Change directory to calab:

* cd calab

1. Install dependencies by running the following command:

* npm install

## 2. Create Child and Parent Components

### 2.1 Create Child Component

1. Create a new Child component using CLI:

* npx -p @angular/cli ng generate component child

1. Open src/app/child/child.component.ts and add the following code:

* import { Component, EventEmitter, Input, Output } from '@angular/core';  
  @Component({  
   selector: 'app-child',  
   standalone: true,  
   imports: [],  
   templateUrl: './child.component.html',  
   styleUrl: './child.component.css'  
  })  
  export class ChildComponent {  
   @Input() message: string | undefined;  
   @Output() messageEvent = new EventEmitter<string>();  
    
   sendMessage() {  
   this.messageEvent.emit('Message from child to parent');  
   }  
  }

1. Open src/app/child/child.component.html and replace current html content with the following. Mention that we will cover Templates in more depth in next Topic:

* <h3>Child Component</h3>  
  <p>{{ message }}</p>  
  <button (click)="sendMessage()">Send Message to Parent</button>

### 2.2 Create Prent Component

1. Create a new Parent component using CLI:

* npx -p @angular/cli ng generate component parent

1. Open src/app/parent/paret.component.ts and add the following code:

* import { Component } from '@angular/core';  
  import { ChildComponent } from '../child/child.component';  
    
  @Component({  
   selector: 'app-parent',  
   standalone: true,  
   imports: [ChildComponent],  
   templateUrl: './parent.component.html',  
   styleUrl: './parent.component.css'  
  })  
  export class ParentComponent {  
   parentMessage = "Message from parent to child";  
   childMessage: string | undefined;  
    
   receiveMessage($event: any) {  
   this.childMessage = $event;  
   }  
  }

1. Open src/app/parent/parent.component.html and replace current html content with the following:

* <h2>Parent Component</h2>  
  <app-child [message]="parentMessage" (messageEvent)="receiveMessage($event)"></app-child>  
  <p>{{ childMessage }}</p>

### 2.3 Inject Parent component into AppComponent

1. Inside src/app/app.component.ts update imports to include ParentComponent:

* imports: [RouterOutlet, ParentComponent],

1. Open src/app/app.component.html template and add the following element after the <div class="divider"...

* <app-parent></app-parent>

### 2.4 Start The Application

1. Start Angular Development Server if not yet started:

* npx -p @angular/cli ng serve
* *Otherwise refresh the browser tab to see updated view.*