

Window communication in angular7:

Purpose:

The purpose of this POC is to allow user to perform window communication in angular7.

By using this:

1. User can pass data from parent window to child window and vice versa.
2. Also User can pass the data across multiple opened window of the same origin.

Motivation:

1. There is no straight forward approach available for this.
2. It is lightweight and very simple to use as compared to other libraries.
3. It avoid parent child gap for the communication. (e.g.: the grandchild window can communicate with super most parent window without concerning about immediate parent).

Files Required:

1. app-event-manager.service.ts
2. app-window-communication.service.ts
3. event.model.ts

How to pass and access data from child window to parent window:

1. Inject the following services in main child and parent component constructor.

```
constructor(  
  private windowService: AppWindowCommunicationService,  
  private cdref: ChangeDetectorRef,  
  private eventManager: AppEventManagerService  
) {}
```

2. To send the data from child to parent window (or all the opened widows) use window-service **on** method for broadcasting data to all available open windows with event name.

```
this.windowService.on('CHILD_EVENT_DATA', value);
```

3. To Access the data in parent window subscribe the event fired by child window using event manager.

```
this.eventManager.subscribe('CHILD_EVENT_DATA', res => {  
  this.data = res.data;  
  this.cdref.markForCheck();  
});  
}
```

How to send and access data from parent window to child window:

1. Inject the following services in child component and parent component.

```
constructor(  
  private windowService: AppWindowCommunicationService,  
  private cdref: ChangeDetectorRef,  
  private eventManager: AppEventManagerService  
) {}
```

2. To pass the data from parent window to child window
 - a. Open window using window.open() and store its reference in its handler.
 - b. Register the handler to pass data using registerToSendData() method of window-service.

```
const handler = window.open(  
  'window',  
  '',  
  'toolbar=0,location=0,status=0,menubar=0,scrollbars=1,resizable=1,width=400,height=400,top=100,left=100'  
);  
this.handler = handler;  
this.windowService.registerToSendData(handler, value);
```

3. Subscribe **PARENT_WINDOW_DATA_EVENT** in child window to access passed data.

```
this.eventManager.subscribe('PARENT_WINDOW_DATA_EVENT', res => {  
  this.data = res.data;  
  this.cdref.detectChanges();  
});
```