**Lesson09 Dynamic component loading in Angular**

**Notes:-**

**1- Component can also be loaded dynamically at runtime using ComponentFactory, ComponentFactoryResolver and ViewContainerResolver**

**2- To load a dynamic component in a template we need an insert location and to get it we need ViewContainerRef of a decorator or a component**

**ComponentFactory and ComponentFactoryResolver**

**Component Factory and Component Factory Resolver**

**Notes:-**

**1-ComponentFactory is used to create instance of components.**

**2-ComponentFactoryResolver resolves a ComponentFactory for a specific component. It is used as follows.**

**let componentFactory = this.componentFactoryResolver.resolveComponentFactory(component);**

**ViewContainerRef**

**Notes:-**

**1-**ViewContainerRef represents a container where we can attach one or more views. Some important methods of ViewContainerRef are

createEmbeddedView() and createComponent(). createEmbeddedView() is used to attach embedded views based on TemplateRef. createComponent() instantiates a single component and inserts its host view into the view container at a specified index. In our dynamic component loader example, we will load component using createComponent() of ViewContainerRef.

let componentRef = viewContainerRef.createComponent(componentFactory);

We get a ComponentRef of newly created component as a return of the above method. clear() method of ViewContainerRef destroys existing view in the container.

**Dynamic Component Loader Example**

**1-**In the loadComponent() method, we are instantiating ComponentFactory for the given component. Now we will create dynamic component. Before creating it we should clear the existing dynamic component from view container using clear() method of ViewContainerRef. Now create dynamic component using createComponent() method of ViewContainerRef that will return instance of ComponentRef for the newly loaded dynamic component. To pass any data to dynamic component use instance property of ComponentRef.   
In the getAllPosts() method we have prepared data for post highlights. We have an array of PostItem that will contain dynamic component name and their corresponding data to be loaded. Now find the code of PostItem class.

Dynamic component will be loaded in the given insertion place. Insertion place will be view container. To get view container reference we can use either directive or component that will do dependency injection of ViewContainerRefusing constructor and keep scope public. If we want to use instance of ViewContainerRef of directive or component in any other component then we use @ViewChild() decorator and ultimately we can access their instance of ViewContainerRef. In our example we will use directive and component both to get insertion location for dynamic component. Find the directive.