## Create a Custom Pipe

1.created a new ts file.

import {Pipe, PipeTransform} from '@angular/core';  
@Pipe ({  
 name : 'sqrt'  
})  
export class SqrtPipe implements PipeTransform {  
 transform(val : number) : number {  
 return Math.sqrt(val);  
 }  
}

2.add the same in app.module.ts.

import { SqrtPipe } from './app.sqrt';  
  
@NgModule({  
 declarations: [  
 SqrtPipe,  
 AppComponent,  
 NewCmpComponent,  
 ChangeTextDirective  
 ],  
  
 imports: [  
 BrowserModule  
 ],  
 providers: [],  
 bootstrap: [AppComponent]  
})  
export class AppModule { }

3.apply

<b>Square root of 729 is: {{729 | sqrt}}</b>

# Create a Custom Directory

1.create the directive using the command line

ng g directive nameofthedirective

Example:

C:\projectA4\Angular 4-app>ng g directive changeText  
installing directive  
 create src\app\change-text.directive.spec.ts  
 create src\app\change-text.directive.ts  
 update src\app\app.module.ts

2**.change-text.directive.spec.ts** and **change-text.directive.ts** get created and the **app.module.ts** file is updated.The ChangeTextDirective class is included in the declarations in the app module. The class is also imported from the file change-text.directive.

3.example changes in change-text.directive.ts file as follows

import { Directive, ElementRef} from '@angular/core';  
@Directive({  
 selector: '[changeText]'  
})  
  
export class ChangeTextDirective {  
 constructor(Element: ElementRef) {  
 console.log(Element);  
 Element.nativeElement.innerText="Text is changed by changeText Directive. ";  
 }  
}

4.apply:

<div style="text-align:center">  
 <span changeText >Welcome to {{title}}.</span>  
</div>

\*\*\*advance video at https://www.youtube.com/watch?v=DNoPO-WrKyM