

## Angular Material Design

Material Design is a design language developed in 2014 by Google. Expanding upon the "card" motifs that debuted in Google Now, Material Design makes more liberal use of grid-based layouts, responsive animations and transitions, padding, and depth effects such as lighting and shadows.

Google announced Material Design on June 25, 2014, at the 2014 Google I/O conference.

Designer explained that, "unlike real paper, our digital material can expand and reform intelligently. Material has physical surfaces and edges. Seams and shadows provide meaning about what you can touch." Google states that their new design language is based on paper and ink but implementation will take place in an advanced manner.

In Angular we can use the concept material design to create our GUI much more better.

To use the concept of material design follow below link

<https://material.angular.io/>

**To use material design approach in Angular we have to follow below steps as**

### **Step 1 - Create new Angular project as**

```
ng new MaterialDemo
```

### **Step 2- Go to that project folder**

```
cd MaterialDemo
```

### **Step 3 - Install Material components**

```
npm install --save @angular/material
```

### **Step 4 - Install Component Development Kit**

```
npm install --save @angular/cdk
```

### **Step 5 - Install component for animations**

```
npm install --save @angular/animations
```

### **Step 6 - To add gesture support install hammerjs**

```
npm install --save hammers
```

### **Step 7 - After above steps this path contains some preinstalled themes of Material**

```
node_modules/@angular/material/prebuilt-themes
```

To use that theme add import statement in styles.css as

```
@import "~@angular/material/prebuilt-themes/indigo-pink.css"
```

**Step 8 - To use animations in our application we have to import it in app.module.ts file as**

```
import {BrowserAnimationsModule} from '@angular/platform-browser/
animations';
```

**Step 9 - Add that module name in imports array in app.module.ts file**

```
@NgModule({
  declarations: [
    AppComponent
  ],
  imports: [
    BrowserModule,
    AppRoutingModule,
    BrowserAnimationsModule
  ],
  providers: [],
  bootstrap: [AppComponent]
})
```

**Step 10 - In material every component is defined in separate module due to which we have to import that module in app.module.ts file**

ex.

```
import {MatButtonModule} from '@angular/material/button';
```

step 11-

Add that module in imports array

```
@NgModule({
  declarations: [
    AppComponent
  ],
```

```
imports: [  
  BrowserModule,BrowserAnimationsModule,MatButtonModule  
],  
providers: [],  
bootstrap: [AppComponent]  
})
```

**Step 12 - Now we can add material component code in .html file as**

```
<button mat-stroked-button>Marvellous Infosystem</button>
```

Now we can add any component which is required in our application.

