



THE NERD – TALK

BY INDIANDOTNET (1.0)

Angular Architecture

By Monica Jain Shah

Angular is a JavaScript framework that enables developers to build web and mobile applications.

It is for building client applications in HTML and TypeScript. Below is the architecture of Angular **Modules, Components, Templates, Metadata, Directives, and Services**

Modules

The basic building blocks of an Angular application are NgModules, Modules may have components, services, functions, and/or values. An app always has at least a root module that enables bootstrapping

Components

Every Angular application has at least one component that is a root component. This component prepare bridge between component hierarchy and Page object model.

A component is a class that has properties and methods that associated with an HTML template that defines a view to be displayed in a target environment. The life cycle of a component is managed by Angular according to user interactions with the application

```
export class EmployeeComponent
```

```
{  
  name: string;  
  designation: string;  
  salary: decimal;  
  
  Constructor()  
  {  
    this.name = 'John Smith';  
    this.Designation = 'Director';  
    this.salary = 250000  
  }  
  
  getEmployeeName : string  
  {  
    return this.name;  
  }  
}
```

Template

Component define view using template where template is a form of HTML that tells Angular how to render the component. The template is responsible for displaying and updating data according to user events:

Below is the example of template

```
<h1>Employee Detail </h1>
<p>Employee : {{name}} </p>
<p>Designation: {{designation}} </p>
```

Component metadata

The metadata associates a template with component either directly with inline code, or by reference. The `@Component` metadata configures to pointing to the template

```
@Component(
{
  selector: 'app-Employee-list',
  templateUrl: './Employee-list.component.html',
  providers: [ EmployeeService ]
}
)
export class EmployeeListComponent implements
OnInit { /* ... */ }
}
```

Data binding

Angular has reduced the burden of writing large amounts of code to handle Data Binding. Angular handles Data Binding by coordinating with templates and components. Angular handles Data

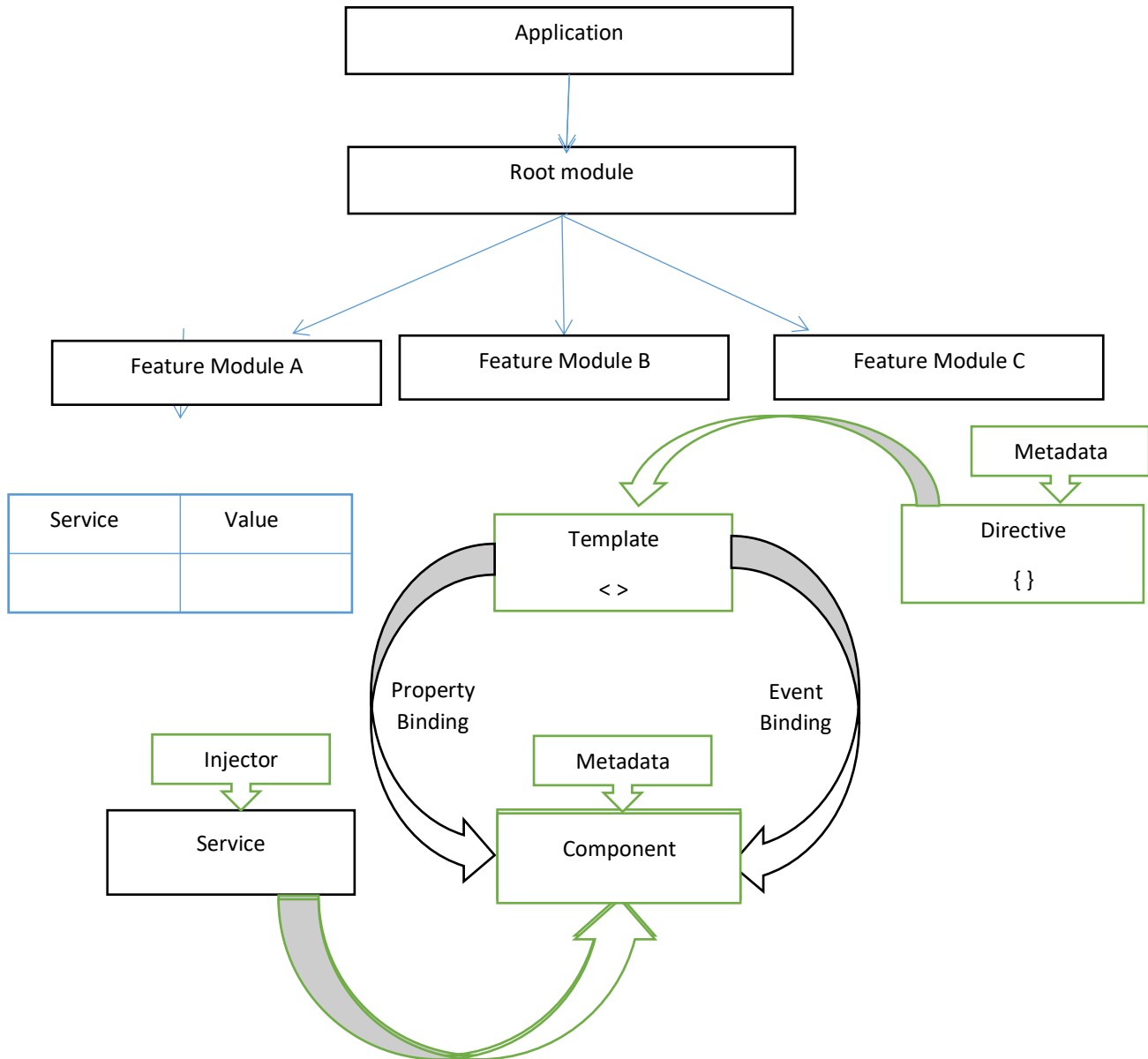
Binding by coordinating with templates and components.

```
<div>Employee Name: {{Employee.name}}<br />
    Designation: <input
[(ngModel)]="Employee.designation">
</div>
```

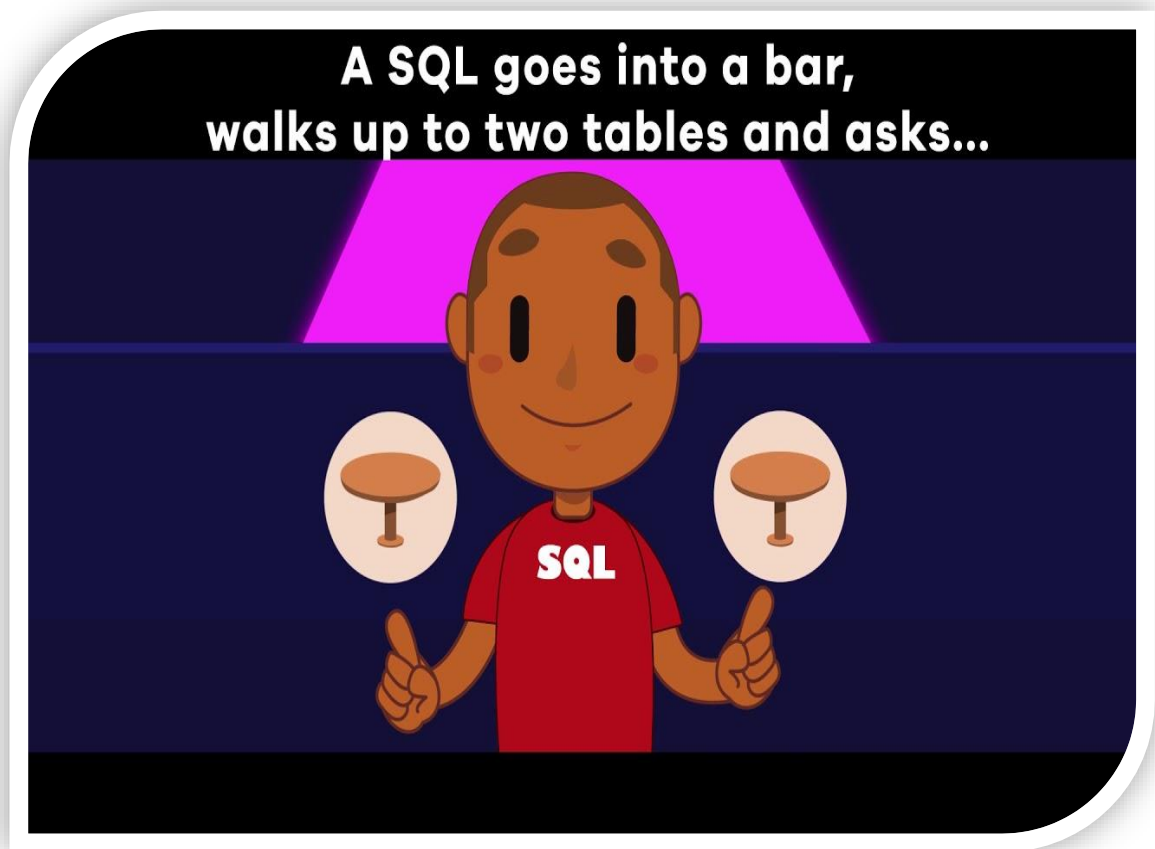
Directives

A directive is instructions or guidelines for rendering a template. A class decorated with `@Directive` to attached metadata is called a directive.

Architecture of Angular application



Just kidding



IOT – Internet Of Things

By Rishabh Vyas

Introduction:

"With the IoT, we're headed to a world where things aren't liable to break catastrophically - or at least, we'll have a hell of a heads' up. We're headed to a world where our doors unlock when they sense us nearby"

What is the Internet of Things?

The Internet of Things, or IoT, refers to the billions of physical devices around the world that are now connected to the internet, collecting and sharing data. Thanks to cheap processors and wireless networks, it's possible to turn anything, from a pill to an aero plane to a self-driving car into part of the IoT. This adds a level of digital intelligence to devices that would be otherwise dumb, enabling them to communicate real-time data without a human being involved, effectively merging the digital and physical worlds.

How big is the Internet of Things?

Big and getting bigger -- there are already more connected things than people in the world. Analyst Gartner calculates that around 8.4 billion IoT devices were in use in 2017, up 31 percent from 2016, and this will likely reach 20.4 billion by 2020. Total spending on IoT endpoints and services will reach almost \$2tn in 2017, with two-thirds of those devices found in China, North America and Western Europe, said Gartner.

Out of that 8.4 billion devices, more than half will be consumer products like smart TVs

and smart speakers. The most-used enterprise IoT devices will be smart electric meters and commercial security cameras

What are the benefits of the Internet of Things?

The IoT promises to make our environment -- our homes and offices and vehicles -- smarter, more measurable, and chattier. Smart speakers like Amazon's Echo and Google Home make it easier to play music, set timers, or get information. Home security systems make it easier to monitor what's going on inside and outside, or to see and talk to visitors. Meanwhile, smart thermostats can help us heat our homes before we arrive back, and smart lightbulbs can make it look like we're home even when we're out

Looking beyond the home, sensors can help us to understand how noisy or polluted our environment might be. Autonomous vehicles and smart cities could change how we build and manage our public spaces.

What are the steps to make Project on IoT?

IoT is very easy and interesting Topic. Follow these steps

- It is necessary to learn python or C++ language.
- You must download Arduino Software.
- You need Sensor like PIR, ultrasonic and many more according to your project.
- Code on Arduino Software and transfer code on hardware (according to your project which hardware you need).

- After transfer code it is necessary to test your project.

Amazing Script to find reference of Column

By Ankit Chouhan

Scenario:

When writing a stored procedure or fetching information from database we often forgot the table names or view names in which the column is used either we are new in the system or n number of tables available in the system.

This is common for the persons who are new in the system. Well below/attached is the query for the same.

Input Parameters:

```
DECLARE @searchParameterNames  
NVARCHAR(max) = 'UserID,CompanyID'
```

--@searchParameterNames accepts single or comma separated parameters.

```
DECLARE @IsExactParameterSearch BIT = 1
```

```
-- @IsExactParameterSearch accepts 0 or 1.  
-- 0 : Column name like '%UserID%' or  
Column name like '%CompanyID%'  
-- 1 : Column name = 'UserID' or Column  
name = 'CompanyID'
```

Output:

The output results are displayed in three levels (separated by a blank row)

In the first, the details are shown only for the Table with the Database Name, Primary Key and Column being searched for.

In the second, all the tables and views containing the search parameter(s) will be displayed.

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In the third, all the tables and views will be displayed with the comma separated values matched with the search parameter(s). I personally have excellent experience with this.

Below are the snapshots for the results depending on the parameters passed in `@IsExactParameterSearch`.

with **`@IsExactParameterSearch BIT = 1`**

1	ObjectID	TypeDesc	DatabaseName	ViewName	TableName	PrimaryKey	ColumnName(s)
2							
3	726949	USER_TABLE	TESTDB	NULL	dbo.User	UserId	UserId
4	726950	USER_TABLE	TESTDB	NULL	dbo.Company	CompanyId	CompanyId
5							
6	726954	USER_TABLE	TESTDB	NULL	dbo.User	UserId	CompanyId
7	726955	USER_TABLE	TESTDB	NULL	dbo.User	UserId	UserId
8	726959	USER_TABLE	TESTDB	NULL	dbo.Company	CompanyId	CompanyId
9	726960	VIEW	TESTDB	dbo.UserDetail	NULL	NULL	UserId
10	726961	VIEW	TESTDB	dbo.UserDetail	NULL	NULL	CompanyId
11	726962	VIEW	TESTDB	dbo.CompanyDetail	NULL	NULL	CompanyId
12							
13	726975	VIEW	TESTDB	dbo.UserDetail	NULL	NULL	CompanyId,UserId

with **`@IsExactParameterSearch BIT = 0`**

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ObjectID	TypeDesc	DatabaseName	ViewName	TableName	PrimaryKey	ColumnName(s)	
1							
2							
3	726949	USER_TABLE	TESTDB	NULL	dbo.User	UserId	UserId
4	726950	USER_TABLE	TESTDB	NULL	dbo.Company	CompanyId	CompanyId
5							
6	726952	USER_TABLE	TESTDB	NULL	dbo.User	UserId	UpdateUserId
7	726953	USER_TABLE	TESTDB	NULL	dbo.User	UserId	CreateUserId
8	726954	USER_TABLE	TESTDB	NULL	dbo.User	UserId	CompanyId
9	726955	USER_TABLE	TESTDB	NULL	dbo.User	UserId	UserId
10	726956	USER_TABLE	TESTDB	NULL	dbo.Company	CompanyId	UpdateUserId
11	726957	USER_TABLE	TESTDB	NULL	dbo.Company	CompanyId	CreateUserId
12	726958	USER_TABLE	TESTDB	NULL	dbo.Company	CompanyId	ParentCompanyId
13	726959	USER_TABLE	TESTDB	NULL	dbo.Company	CompanyId	CompanyId
14	726960	VIEW	TESTDB	dbo.UserDetail	NULL	NULL	UserId
15	726961	VIEW	TESTDB	dbo.UserDetail	NULL	NULL	CompanyId
16	726962	VIEW	TESTDB	dbo.CompanyDetail	NULL	NULL	CompanyId
17	726963	VIEW	TESTDB	dbo.CompanyDetail	NULL	NULL	ParentCompanyId
18							
19	726971	USER_TABLE	TESTDB	NULL	dbo.User	UserId	UpdateUserId,CreateUserId,CompanyId,UserId
20	726972	USER_TABLE	TESTDB	NULL	dbo.Company	CompanyId	UpdateUserId,CreateUserId,ParentCompanyId,CompanyId
21	726975	VIEW	TESTDB	dbo.UserDetail	NULL	NULL	CompanyId,UserId
22	726976	VIEW	TESTDB	dbo.CompanyDetail	NULL	NULL	ParentCompanyId,CompanyId

September Month's Event

By Indiandotnet

On 28th September 2019 Indiandotnet – Indore Software Developer Community conducted free seminar on various topics to help professionals to aware with latest trend.

In the event various Industry expert came and participated.

We really want to thank our speakers of the event who shared their valuable knowledge with the community member.

Below is some glimpse of the sessions.

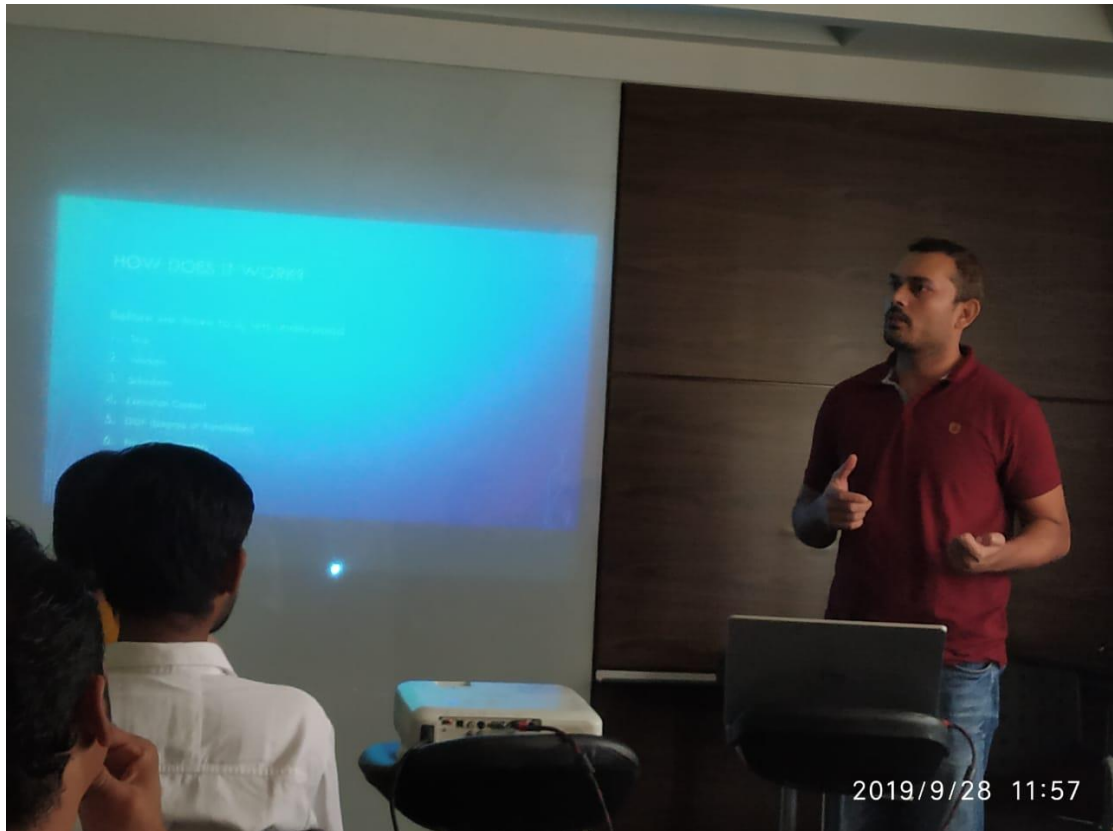


Session attendees



Salesforce Session by Anoop & Gurjeet

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Parallelism in SQL Server by Rajesh Ranjan



Selenium introduction Session by Manak



DevOps introduction Session by Abhishek

Future Events

On October 19th, 2019 we are going to conduct another webinar which will be taken by Divya on **“Image Classification using TensorFlow 2.0”**

You can register in this event it is a free of cost learning event.

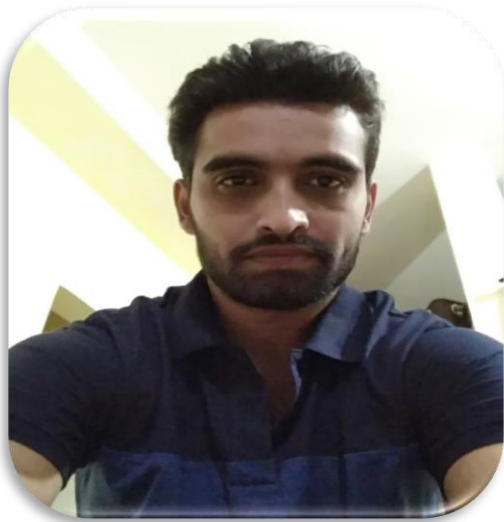
On 2nd November we are again planning an in-Person event on various topics like AWS, SQL Server, & Azure. We are going to share the link soon.

Current Edition Contribution

We would like to thank each individual who helped us in the current month's edition preparation.

In case if you are interested in sharing your knowledge (interview questions, articles, opportunities) then you can connect us via email: **rajatjai@gmail.com** & WhatsApp number **+91-9926066799**

1. Ankit Chouhan
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2. Rishabh Vyas (rishuvyas2001@gmail.com)



3. Monica Jain Shah



Community Star

It gives me immense pleasure to share that this September month's **Community Star** is Anurag Saxena.



Anurag is Data Geek/Trainer/Blogger - Passionate about all Database and Analytics related technologies. Expertise in various databases like SQL Server, Oracle, MongoDB etc. Good exposure on designing enterprise wise traditional (OLTP) as well as Data Warehouse (OLAP) database systems. Good Experience on Microsoft BI stack (MSBI - SSIS/SSRS/SSAS) and PowerBI, Spotfire. Experience on designing and defining Master Data Management system using Microsoft SQL Server for Large enterprise solution.

You can connect with him via saxena.anurag20@hotmail.com

In the next edition we will include different opportunities and Interview questions & answers as well.

Friends feel free to share your thoughts, suggestion and your technical knowledge with us.

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