## **New Forms Module**

There are a few simple changes (mostly syntactical or name changes) in Angular forms. All form classes have been moved from '@angular/common' to a new library: '@angular/forms'.

In order to use the new form APIs we need to import the new **FormsModule** into our application module (or any modules that require form functionality).

```
import { FormsModule } from '@angular/forms';

@NgModule({
    imports: [
        FormsModule
    ]
})
export class AppModule {}
```

### Template-driven Forms

Here is a cheat sheet of changes. Continue reading for more details:

Old API	New API
<pre><input ngcontrol="firstName"/></pre>	<pre><input name="firstName" ngmodel=""/></pre>
<pre><div ngcontrolgroup="address"></div></pre>	<pre><div ngmodelgroup="address"></div></pre>
<pre><input #firstname="ngForm"/></pre>	<pre><input #firstname=""/></pre>

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### ngModel

Previously, we used **ngControl** directive on input fields. Angular would create a form control object for these input fields under the hood:

```
<input type="text" ngControl="firstName" />
```

Now, instead of **ngControl**, we apply **ngModel** directive along with the **name** attribute.

```
<input type="text" name="firstName" ngModel />
```

Note that we're simply applying **ngModel** directive on the input field, and we don't necessarily have to use the two-way binding syntax (unless we want to bind this input field to a component property).

What happens if we forget to apply **ngModel** directive on an input field? Then, we won't have a form control object for that field. So, if we log the JSON object that represents the form, we won't see that field.

### ngModelGroup

If a few fields are part of a group, we use **ngModelGroup** directive:

With this, in the submit handler, we'll get a nested structure like this:

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```
{
    address: {
        city: "Melbourne",
        zip: 3144
    }
}
```

### Referencing form controls

To get a reference to the underlying form control object, previously we used the following syntax:

```
<input #name="ngForm" />
```

We could use this reference to display validation errors:

```
<div *ngIf="name.errors">...</div>
```

This has been simplified in the API. We simply assign a template variable to an input field, without setting it to "ngForm", and this will reference the underlying form control object:

```
<input #name />
```

## **New Forms Module**

#### Model-driven Forms

We need to import **ReactiveFormsModule** (in addition to **FormsModule**) into our module:

```
import { FormsModule, ReactiveFormsModule } from '@angular/forms';

@NgModule({
   imports: [
      FormsModule,
      ReactiveFormsModule
   ]
})
export class AppModule {}
```

Note that this is just an experimentation and it's likely that in the final release, ReactiveFormsModule will be merged with FormsModule.

There are a few name changes in the directives:

Old API	New API
<pre><form [ngformmodel]="registerForm"></form></pre>	<pre><form [formgroup]="registerForm"></form></pre>
<pre><input ngcontrol="firstName"/></pre>	<pre><input formcontrolname="firstName"/></pre>
<pre><fieldset ngcontrolgroup="address"></fieldset></pre>	<fieldset <pre="">formGroupName="address"&gt;</fieldset>

Everything else is exactly the same.