

## ng-pattern DIRECTIVE IN ANGULARJS

- The **ng-pattern directive** in AngularJS used for add up the pattern validator to ngModel.
- It is mainly used for text-based **input** controls but also applied for custom text-based controls.
- It is used for sets the pattern validation error key if input field data does not match a RegExp that is found by evaluating the Angular expression given in the ngpattern attribute value:
  - It is used directly when the expression evaluates to a RegExp object.
  - Whenever the expression evaluates to a string, then it will be converted to a RegExp after wrapping it in ^ and \$ characters.
  - For ex, "abc" will be converted to new RegExp ('^abc\$').

### Syntax for ng-pattern directive in AngularJS:

```
<element ng-pattern="expression" > </element>
```



## Sample coding for ng-pattern directive in AngularJS:

```
<! DOCTYPE html>
<html>
  <head>
    <title>Wikitechy AngularJS Tutorials</title>
    <script
src="https://ajax.googleapis.com/ajax/libs/angularjs/1.5.6/angular.min.js"> </sc
ript>
  </head>
  <body>
    <h3>ng-pattern Directive in AngularJS Tutorial </h3>
    <form ng-app="myApp" ng-controller="patternCtrl" name="myform">
      Enter Mobile Number :
      <input type="text" name="number" ng-model="number" required ng-
pattern="/^[0-9]+$/" >
      <span style="color:red" >
        <span ng-show="myform.number.$error.required"> Number is
required.</span>
        <span ng-show="myform.number.$error.pattern"> Pattern does not
match</span> <br/> <br/>
      </span>
      <input type="submit" value="submit"/>
    </form>
    <script>
      var app = angular.module("myApp", []);
      app.controller("patternCtrl", function($scope) {
      });
    </script>
  </body>
</html>
```



## ng-pattern Directive in AngularJS:

```
<input type="text" name="number" ng-model="number"
required ng-pattern="/^[0-9]+$/" >
```

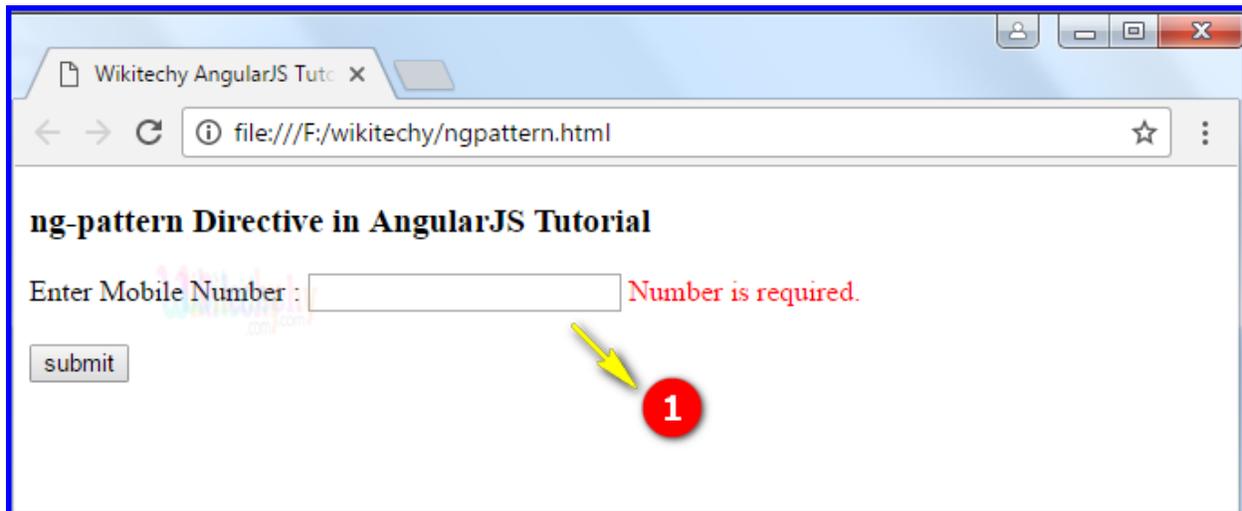
- It sets the pattern validation key if the input field data does not match a regular expression that is bind to ng-pattern.

## Code Explanation for ng-pattern directive in AngularJS:

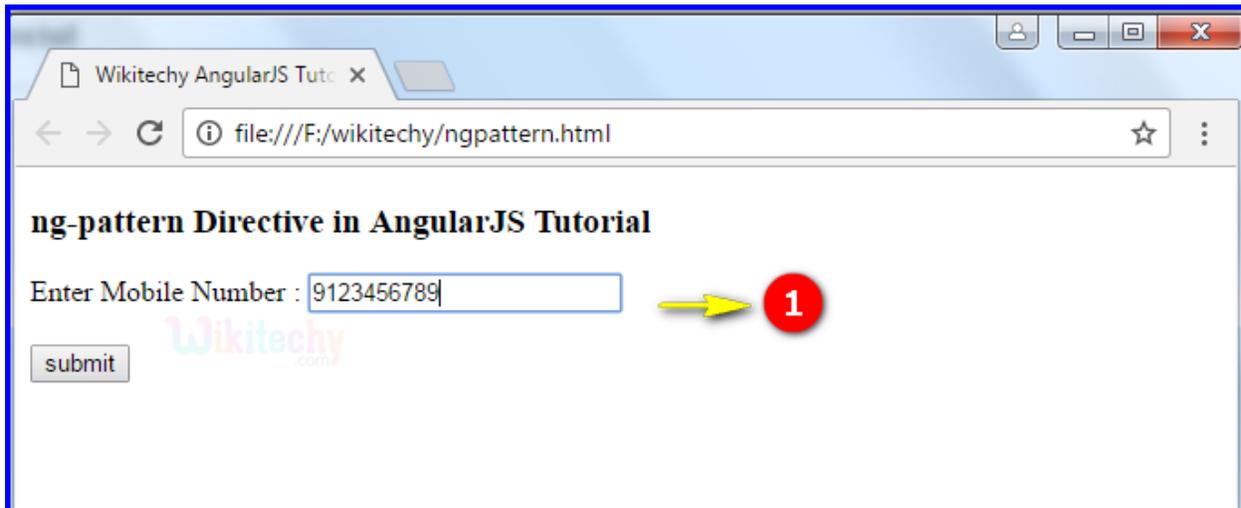
```
<!DOCTYPE html>
<html>
  <head>
    <title>Wikitechy AngularJS Tutorials</title>
    <script src="https://ajax.googleapis.com/ajax/libs/angularjs/
    1.5.6/angular.min.js"></script>
  </head>
  <body>
    <h3>ng-pattern Directive in AngularJS Tutorial </h3>
    <form ng-app="myApp" ng-controller="patternCtrl" name="myform">
      Enter Mobile Number :
      <input type="text" name="number" ng-model="number" required
      ng-pattern="/^[0-9]+$/" >
      <span style="color:red" >
        <span ng-show="myform.number.$error.required">
          Number is required.</span>
        <span ng-show="myform.number.$error.pattern">
          Pattern does not match</span><br/><br/>
      </span>
      <input type="submit" value="submit"/>
    </form>
    <script>
      var app = angular.module("myApp", []);
      app.controller("patternCtrl", function($scope) {
      });
    </script>
  </body>
</html>
```

1. The **ng-app** specifies the root element ("myApp") to define AngularJS application.
2. The **ng-controller** control the data of "**patternCtrl**" in AngularJS application.
3. The "number" is declare the type name in <input> tag.
4. The **ng-model** bind an input field value to AngularJS application variable ("**number**").
5. The "**ng-pattern**" is used to specify the textbox should match the pattern specified in the **regex**.
6. The <**span**> is used to display the warning on the required field error.
7. The <**span**> is used to display the warning on pattern error.
8. The "**submit**" is declare the **type** value of the <input> tag.

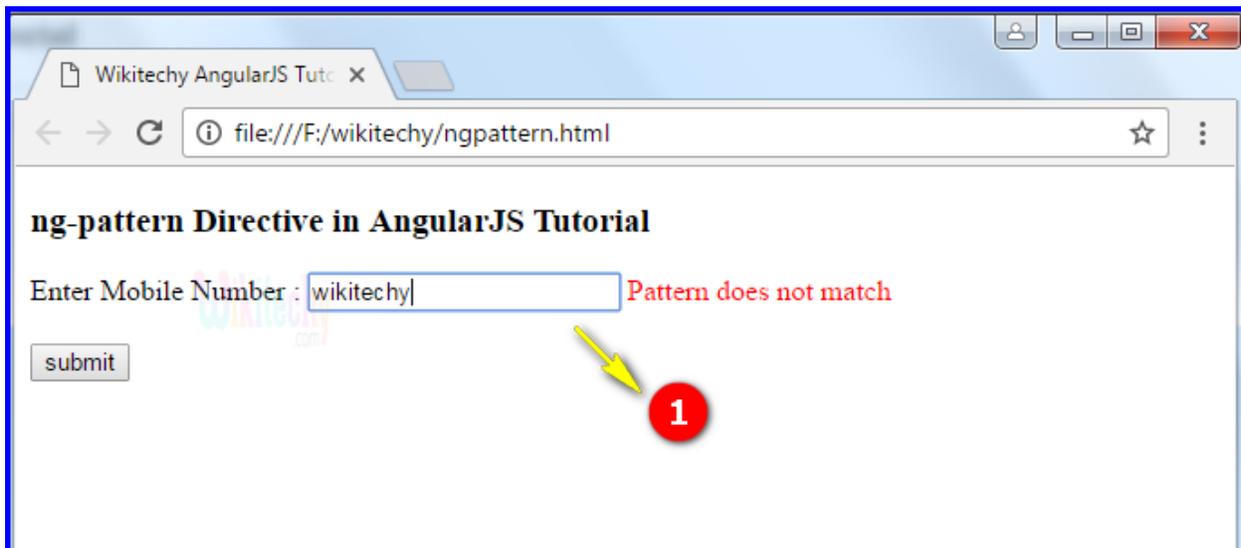
### Sample Output for ng-pattern directive in AngularJS:



1. If the textbox is empty, then the required field error shows the warning.



1. If the user enters valid mobile number, there is no warning displayed.



1. If the textbox does not match the pattern, then the pattern error shows the warning.

### Tips and Notes

The ng-pattern directive is added when the plain pattern attribute is used, with two differences:

- The ng-pattern directive does not set the pattern attribute.
- The ngpattern attribute should be an expression, while the pattern value must be inserted.

