**1. Order Form with GST Calculation and Total Price (AngularJS)**

<!DOCTYPE html>

<html ng-app="orderApp">

<head>

<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js"></script>

</head>

<body ng-controller="OrderController">

<h2>Order Form</h2>

<div ng-repeat="product in products">

<input type="checkbox" ng-model="product.selected"> {{product.name}} - ₹{{product.price}}

</div>

<p>Bill Amount: ₹{{billAmount()}}</p>

<p>GST (18%): ₹{{gstAmount()}}</p>

<p>Total Amount: ₹{{totalAmount()}}</p>

<script>

angular.module('orderApp', [])

.controller('OrderController', function($scope) {

$scope.products = [

{ name: 'Product 1', price: 100, selected: false },

{ name: 'Product 2', price: 200, selected: false },

{ name: 'Product 3', price: 300, selected: false },

{ name: 'Product 4', price: 400, selected: false },

{ name: 'Product 5', price: 500, selected: false }

];

$scope.billAmount = function() {

return $scope.products.reduce((sum, p) => p.selected ? sum + p.price : sum, 0);

};

$scope.gstAmount = function() {

return $scope.billAmount() \* 0.18;

};

$scope.totalAmount = function() {

return $scope.billAmount() + $scope.gstAmount();

};

});

</script>

</body>

</html>

**2. Prime Number Filter**

<!DOCTYPE html>

<html ng-app="primeApp">

<head>

<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js"></script>

</head>

<body ng-controller="PrimeCtrl">

<input type="number" ng-model="num">

<p>{{ num | isPrime }}</p>

<script>

angular.module('primeApp', [])

.filter('isPrime', function() {

return function(num) {

if (num < 2) return num + " is not prime";

for (let i = 2; i < num; i++) {

if (num % i === 0) return num + " is not prime";

}

return num + " is prime";

};

})

.controller('PrimeCtrl', function($scope) {});

</script>

</body>

</html>

**3. AngularJS Service to Square a Number**

<!DOCTYPE html>

<html ng-app="squareApp">

<head>

<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js"></script>

</head>

<body ng-controller="SquareCtrl">

<input type="number" ng-model="number">

<button ng-click="getSquare()">Square</button>

<p>Result: {{ result }}</p>

<script>

angular.module('squareApp', [])

.service('MathService', function() {

this.square = function(a) {

return a \* a;

};

})

.controller('SquareCtrl', function($scope, MathService) {

$scope.getSquare = function() {

$scope.result = MathService.square($scope.number);

};

});

</script>

</body>

</html>

**4. AngularJS Service for Add/Sub**

<!DOCTYPE html>

<html ng-app="calcApp">

<head>

<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js"></script>

</head>

<body ng-controller="CalcCtrl">

Number A: <input type="number" ng-model="a"><br>

Number B: <input type="number" ng-model="b"><br>

<button ng-click="add()">Add</button>

<button ng-click="sub()">Subtract</button>

<p>Result: {{ result }}</p>

<script>

angular.module('calcApp', [])

.service('CalcService', function() {

this.add = function(x, y) { return x + y; };

this.sub = function(x, y) { return x - y; };

})

.controller('CalcCtrl', function($scope, CalcService) {

$scope.add = function() {

$scope.result = CalcService.add($scope.a, $scope.b);

};

$scope.sub = function() {

$scope.result = CalcService.sub($scope.a, $scope.b);

};

});

</script>

</body>

</html>

**5. Read JSON and Populate Dropdown**

<!DOCTYPE html>

<html ng-app="jsonApp">

<head>

<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js"></script>

</head>

<body ng-controller="JsonCtrl">

<select ng-options="student.enroll for student in students" ng-model="selectedStudent"></select>

<script>

angular.module('jsonApp', [])

.controller('JsonCtrl', function($scope, $http) {

$http.get('students.json').then(function(res) {

$scope.students = res.data;

});

});

</script>

</body>

</html>

**students.json:**

json

CopyEdit

[

{ "enroll": "101", "name": "Alice" },

{ "enroll": "102", "name": "Bob" }

]

**6. Password Validation Script**

<!DOCTYPE html>

<html ng-app="passApp">

<head>

<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js"></script>

</head>

<body ng-controller="PassCtrl">

Password: <input type="password" ng-model="password"><br>

Confirm: <input type="password" ng-model="confirm"><br>

<p ng-show="!isValid()">Invalid Password</p>

<p ng-show="password !== confirm">Passwords don't match</p>

<script>

angular.module('passApp', [])

.controller('PassCtrl', function($scope) {

$scope.isValid = function() {

return /^[0-9][A-Za-z0-9]{3,9}$/.test($scope.password);

};

});

</script>

</body>

</html>

**7. Registration Form Validation**

<!DOCTYPE html>

<html ng-app="regApp">

<head>

<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js"></script>

</head>

<body ng-controller="RegCtrl">

<form name="regForm">

First Name: <input type="text" ng-model="user.fname" required><br>

Last Name: <input type="text" ng-model="user.lname" required><br>

Email: <input type="email" ng-model="user.email" required><br>

Mobile: <input type="tel" ng-model="user.mobile" pattern="\\d{10}" required><br>

Gender:

<input type="radio" ng-model="user.gender" value="M"> Male

<input type="radio" ng-model="user.gender" value="F"> Female<br>

Department:

<select ng-model="user.dept" required>

<option value="">Select</option>

<option>CS</option>

<option>IT</option>

</select><br>

<button ng-disabled="regForm.$invalid">Submit</button>

</form>

</body>

</html>

**8. Single Page App (SPA) Use AngularJS routing:**

<!DOCTYPE html>

<html ng-app="spaApp">

<head>

<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js"></script>

<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular-route.js"></script>

</head>

<body>

<a href="#!about">About</a>

<a href="#!education">Education</a>

<a href="#!hobbies">Hobbies</a>

<a href="#!contact">Contact</a>

<div ng-view></div>

<script>

angular.module('spaApp', ['ngRoute'])

.config(function($routeProvider) {

$routeProvider

.when("/about", { template: "<h3>About Me</h3><p>This is me.</p>" })

.when("/education", { template: "<h3>Education</h3><p>Bachelor's in CS</p>" })

.when("/hobbies", { template: "<h3>Hobbies</h3><p>Reading, coding</p>" })

.when("/contact", { template: "<h3>Contact</h3><p>email@example.com</p>" });

});

</script>

</body>

</html>

**9. Custom Directive for Calculator**

<!DOCTYPE html>

<html ng-app="calcDirectiveApp">

<head>

<script src="https://ajax.googleapis.com/ajax/libs/angularjs/1.8.2/angular.min.js"></script>

</head>

<body>

<calculator></calculator>

<script>

angular.module('calcDirectiveApp', [])

.directive('calculator', function() {

return {

template: `

<input type="number" ng-model="a">

<input type="number" ng-model="b"><br>

<button ng-click="result = a + b">Add</button>

<button ng-click="result = a - b">Sub</button>

<button ng-click="result = a \* b">Mul</button>

<p>Result: {{result}}</p>

`,

restrict: 'E',

controller: function($scope) {}

};

});

</script>

</body>

</html>

**10. NodeJS Web Server (Different URLs)**

const http = require('http');

http.createServer((req, res) => {

if (req.url === '/home') {

res.end('Welcome to Home Page');

} else if (req.url === '/about') {

res.end('About Page');

} else {

res.end('404 Not Found');

}

}).listen(3000, () => console.log("Server running at http://localhost:3000"));

**11. NodeJS File Upload with Size Restriction (.JS)**

const express = require('express');

const multer = require('multer');

const app = express();

const upload = multer({

limits: { fileSize: 1000000 } // 1MB

});

app.post('/upload', upload.single('file'), (req, res) => {

res.send('File uploaded!');

});

app.listen(3000, () => console.log('Listening on port 3000'));

**12. Full Stack App: AngularJS + NodeJS + MongoDB (Library)**

**Frontend (AngularJS - simplified)**

**html**

<div ng-app="libApp" ng-controller="LibCtrl">

<input type="text" ng-model="book.title" placeholder="Book Title">

<button ng-click="addBook()">Add Book</button>

<ul><li ng-repeat="book in books">{{book.title}}</li></ul>

</div>

<script>

angular.module('libApp', [])

.controller('LibCtrl', function($scope, $http) {

$scope.books = [];

$scope.addBook = function() {

$http.post('/api/books', $scope.book).then(res => {

$scope.books.push(res.data);

$scope.book = {};

});

};

});

</script>

**Backend (NodeJS + Express + MongoDB) (Js)**

const express = require('express');

const mongoose = require('mongoose');

const bodyParser = require('body-parser');

const app = express();

mongoose.connect('mongodb://localhost/library');

const Book = mongoose.model('Book', { title: String });

app.use(bodyParser.json());

app.post('/api/books', async (req, res) => {

const book = new Book(req.body);

await book.save();

res.send(book);

});

app.listen(3000, () => console.log('Server running'));