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DART

Practical 01.

Aim: Write a code to demonstrate year is leap year or not in Dart.

Code:

```
void main () {
    int year = 2024;

    if (( year % 4 == 0 && year % 100 != 0)
        || ( year % 400 == 0))
    {
        print (' $ year is a leap year');
    } else {
        print (' $ year is not a leap year');
    }
}
```

Dart

P1) o/p: 2024 is a leap year.

Practical 2

Aim: Code to demonstrate students grade system by using switch case in Dart.

Code:

```dart
void main () {
    String grade = getGrade (85);
    print (" Your grade is : $grade ");
}

String getGrade ( int score) {
    String grade;
    Switch ( score ~/ 10) {
        Case 10 :
        Case 9 :
            grade = 'A';
            break;
        Case 8 :
            grade = 'B';
            break;
        Case 7:
            grade = 'C';
            break;
        case 6 :
            grade = 'D';
        default :
            grade = 'F';
    }
    return grade;
}
```

P2) O/P:

Your grade is : B.

Practical 3

Aim: Code to demonstrate while loop in Dart.

Code:
```
void main () {
    int number = 1;

    while (number <= 10) {
        print (number);
        number ++;
    }
}
```

Practical 4.

Aim: Code to demo ~~practical 4~~. OOPS Concept in dart (Objects, classes).

Code:
```
void main () {
    var student = Student ('Alice', 20);
    print ('$ $ student.name } is $ {.student.age}
    years old ');
}

class Student {
    String name;
    Int age;

    Student (this.name, this.age);
}
```

P3) o/p: 1
2
3
4
5
6
7
8
9
10

P4) o/p:

Alice is 20 years old.

Practical 5

Aim: Code to demonstrate arithmetic operators in dart.

Code:

```dart
void main (){
    int a = 10;
    int b = 5;

    int sum = a + b;
    print ('Addition : $a + $b = $sum');

    int diff = a-b;
    print ('Subtraction: $a - $b = $diff');

    int product = a * b;
    print ('Multiplication: $a * $b = $product');

    int quotient = a / b;
    print ('Division : $a / $b = $quotient');
}
```

P5) O/P:

Addition: $10 + 5 = 15$

Subtraction: $10 - 5 = 5$

Multiplication: $10 * 5 = 50$

Division: $10/5 = 2.0$

Node JS

Practical 1.

Aim: Code to display Hello world in Node JS.

Code:

```
console.log('Hello World');
```

(Note: Make sure node JS is installed. Create a new file and add this code there. To run script open cmd, navigate to your file and run
→ node app.js.

Practical 2.

Aim: Arithmetic operator in Node JS.

Code:

```
// Addition
const a = 10;
const b = 5;

const sum = a+b;
console.log('Addition: ${a}+ ${b} = ${sum}');

const sub = a-b;
console.log('Subtract: ${a}-${b} = ${sub}');
```

→ Node JS ←

P1) O1P:

Hello World.

P2) O1P:

Addition : 10 + 5 = 15
Subtract : 10 - 5 = 5

Practical 3

Aim: Logical Operator in Node JS.

Code:

```
const apple = true;
const orange = false;

if (Apple && orange) {
    console.log(" You have both apple
                and orange");
} else {
    console.log(" You don't have any
                of them");
}
```

Practical 4.

Aim: Conditional operator in node JS.

Code:

```
const age = 20;
let can vote;

if (age >= 18) {
    console.log('You can vote');
} else {
    console.log('No, you can't');
}
```

P3) O/P:

You don't have any of them.

P4) O/P:

You can vote.

Practical 5

Aim: While loop in node Js.

Code:

```
let    counter = 1;
while   (counter <= 5) {
        console.log(counter);
        counter ++;
}
```

Practical 6.

Aim: For loop in node Js.

Code:

```
for (let i = 1; i <= 5; i++) {
        console.log(i);
}
// printing numbers from 1 to 5.
```

P5) o|p: (while)
1
2
3
4
5

P6) op: (for)
1
2
3
4
5

Angular JS

Practical 1.

Aim: Code to display text data from text field using pre-defined function.

Code:
```html
<! Doctype Html >
<html>
<head>
    <script src = "https://ajax.googleapis.com/ajax/libs/angularjs/1.6.9/min.js">
    //Script>
</head>
<body ng-apps="myApp" ng-Controller="myCtrl">
    <p> Input Something in the input box</p>
    <p> Name: <input type="text" ng-module
            ="name" </p>.
    <h1> Hello {{ displayedName }} </h1>

    <script>
        var app = angular.module ('myApp',[]);
        app.controller ('myCtrl', function ($scope) {
            $scope.updateName = function () {
                $scope.displayedName = $scope.name;
        };
    });
    </script>
</body>
</html>.
```

Angular JS

P1) o/p:

Input something in the input box:

Name: [Vipul]

Hello Vipul

Practical 2.

Aim: 1 to 10 numbers using for loop in angular JS.

Code:

```html
<!Doctype html>
<html>
<head>
    <script src="https://ajax.googleapis.
        com/ajax/libs/angular.js"></script>
</head>
<body ng-app = "myApp" ng-controller = "myCtrl">

    <p> Numbers from 1 to 10: </p>
    <ul>
        <li ng-repeat = "number in numbers">
            {{ number }} </li>
    </ul>
    <script>
        var app = angular.module('myApp',[]);
        app.controller ("myCtrl", function($scope){
            $scope.numbers = [];
            for(var i= 1; i<=10; i++){
                $scope.numbers.push(i);
            }
        });
    </script>
</body>
</html>
```

Angular 7S

P2) O/P:

Numbers from 1 to 10:

1
2
3
4
5
6
7
8
9
10