app.js

const express= require('express');

const app= express();

app.use(express.urlencoded({ extended : true }));

app.set('view engine', 'ejs');

app.listen(8080);

app.get('/', (req, res) => res.render('kalkulatorBilangan'));

app.get('/kalkulatorBilanganPage', (req, res) => res.render('kalkulatorBilangan'));

app.get('/kalkulatorTanggalPage', (req, res) => res.render('kalkulatorTanggal'));

app.get('/kalkulatorDecimalOctalPage', (req, res) => res.render('kalkulatorDecimalOctal'));

app.post('/calculateBilangan', (req, res) => {

let result= '';

if (req.body.val1 !== '' && req.body.val2 !== '' && req.body.operator !== '') {

let val1= parseFloat(req.body.val1);

let val2= parseFloat(req.body.val2);

let count= 0;

if (req.body.operator === 'add') {

count= val1+val2;

} else if (req.body.operator === 'minus') {

count= val1-val2;

} else if (req.body.operator === 'multiply') {

count= val1\*val2;

} else if (req.body.operator === 'division') {

count= val1/val2;

}

result= `Hasilnya adalah ${count.toString().replace(/\B(?=(\d{3})+(?!\d))/g, '.')}`;

} else {

result= `Field tidak boleh kosong`;

}

res.render('kalkulatorBilangan', { result: result });

});

app.post('/calculateTanggal', (req, res) => {

let result= { };

if (req.body.val1 !== '' && req.body.val2 !== '') {

let startDate= req.body.val1.split('-').reverse();

let endDate= req.body.val2.split('-').reverse();

for (let i = 0; i < startDate.length; i++) startDate[i]= parseInt(startDate[i]);

for (let i = 0; i < endDate.length; i++) endDate[i]= parseInt(endDate[i]);

//SWAP TANGGAL

if (startDate[2] >= endDate[2]) { //TAHUN

if (startDate[1] >= endDate[1]) { //BULAN

if (startDate[0] >= endDate[0] || startDate[0] <= endDate[0]) { //HARI

let tempDate= startDate;

startDate= endDate;

endDate= tempDate;

}

}

}

let beetwen= {

day: Math.abs(endDate[0]-startDate[0]),

month: Math.abs(endDate[1]-startDate[1]),

year: endDate[2]-startDate[2]

};

result.days= beetwen.year\*365+beetwen.month\*30+beetwen.day;

let converted= {

month: 0,

week: 0,

day: 0

};

converted.month= Math.floor(result.days/30);

let yearDays= 0;

if (converted.month > 12) {

yearDays= Math.ceil(((converted.month\*30)/365))+(converted.month\*30)-5;

} else if (converted.month < 12) {

yearDays= converted.month\*30;

} else if (converted.month === 12) {

yearDays= 365;

}

converted.week= Math.floor((result.days-yearDays)/7);

converted.day= converted.week > 0 ? Math.floor((result.days-yearDays)-converted.week\*7) : beetwen.day;

result.days= `Perbedaannya adalah ${result.days.toString().replace(/\B(?=(\d{3})+(?!\d))/g, '.')} hari`;

result.converted= `${converted.month} Bulan ${converted.week} Minggu ${converted.day} Hari`;

} else {

result.error= 'Field tidak boleh kosong';

}

res.render('kalkulatorTanggal', { result : result });

});

app.post('/calculateDecimalOctal', (req, res) => {

let result= '';

if (req.body.val !== '' && req.body.type !== '') {

let val= parseInt(req.body.val);

if (req.body.type === 'decToOct') {

let divider= val;

let remainder= 0;

let converted= '';

while (divider > 0) {

remainder= val%8;

val= Math.floor(val/8);

divider= val;

converted+= remainder.toString();

}

converted= parseInt(converted.split('').reverse().join(''));

result= `Hasilnya adalah ${converted.toString().replace(/\B(?=(\d{3})+(?!\d))/g, '.')}`;

} else if (req.body.type === 'octToDec') {

let divided= val.toString().split('').reverse();

let converted= 0;

for (let i = 0; i < divided.length; i++) {

let dividedVal= parseInt(divided[i]);

converted+= dividedVal\*Math.pow(8, i);

}

result= `Hasilnya adalah ${converted.toString().replace(/\B(?=(\d{3})+(?!\d))/g, '.')}`;

}

} else {

result= 'Field tidak boleh kosong';

}

res.render('kalkulatorDecimalOctal', { result : result });

});

console.log('Server running at port 8080');

views/kalkulatorBilangan.ejs

<!DOCTYPE html>

<html lang="en">

<head>

<style>

#nav {

display: flex;

justify-content: space-between;

}

#nav a {

padding-top: 1.5%;

padding-bottom: 1.5%;

}

form {

text-align: center;

}

form input {

margin-top: 1%;

margin-bottom: 1%;

}

</style>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<link rel="stylesheet" href="./style.css">

<title>Kalkulator Bilangan</title>

</head>

<body>

<div id="nav">

<a href="http://localhost:8080/kalkulatorDecimalOctalPage">

<button>Ke Kalkulator Decimal Octal</button>

</a>

<h2>Kalkulator Bilangan Sederhana</h2>

<a href="http://localhost:8080/kalkulatorTanggalPage">

<button>Ke Kalkulator Tanggal</button>

</a>

</div>

<form action="http://localhost:8080/calculateBilangan" method="POST">

Masukkan angka pertama <br>

<input type="number" name="val1" step="any"> <br>

Masukkan angka kedua <br>

<input type="number" name="val2" step="any"> <br>

Pilih operator <br> <br>

<select name="operator">

<option value="add">+</option>

<option value="minus">-</option>

<option value="multiply">\*</option>

<option value="division">/</option>

</select> <br>

<input type="submit" value="Hitung">

</form>

<% if (typeof result !== 'undefined') { %>

<br>

<div style="text-align: center; font-size: 2vw;">

<%= result %>

</div>

<% } %>

</body>

</html>

views/kalkulatorTanggal

<!DOCTYPE html>

<html lang="en">

<head>

<style>

#nav {

display: flex;

justify-content: space-between;

}

#nav a {

padding-top: 1.5%;

padding-bottom: 1.5%;

}

form {

text-align: center;

}

form input {

margin-top: 1%;

margin-bottom: 1%;

}

</style>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Kalkulator Tanggal</title>

</head>

<body>

<div id="nav">

<a href="http://localhost:8080/kalkulatorBilanganPage">

<button>Ke Kalkulator Bilangan</button>

</a>

<h2>Kalkulator Tanggal Sederhana</h2>

<a href="http://localhost:8080/kalkulatorDecimalOctalPage">

<button>Ke Kalkulator Decimal Octal</button>

</a>

</div>

<form action="http://localhost:8080/calculateTanggal" method="POST">

Masukkan tanggal pertama <br>

<input type="date" name="val1"> <br>

Masukkan tanggal kedua <br>

<input type="date" name="val2"> <br>

<input type="submit" value="Hitung">

</form>

<% if (typeof result !== 'undefined') { %>

<br>

<div style="text-align: center; font-size: 2vw;">

<% if (typeof result.error !== 'undefined') { %>

<%= result.error %>

<% } else { %>

<%= result.days %> <br> <br>

atau <br> <br>

<%= result.converted %>

<% } %>

</div>

<% } %>

</body>

</html>

views/kalkulatorDecimalOctal.ejs

<!DOCTYPE html>

<html lang="en">

<head>

<style>

#nav {

display: flex;

justify-content: space-between;

}

#nav a {

padding-top: 1.5%;

padding-bottom: 1.5%;

}

form {

text-align: center;

}

form input {

margin-top: 1%;

margin-bottom: 1%;

}

</style>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>Kalkulator Decimal Octal</title>

</head>

<body>

<div id="nav">

<a href="http://localhost:8080/kalkulatorTanggalPage">

<button>Ke Kalkulator Tanggal</button>

</a>

<h2>Kalkulator Decimal Octal Sederhana</h2>

<a href="http://localhost:8080/kalkulatorBilanganPage">

<button>Ke Kalkulator Bilangan</button>

</a>

</div>

<form action="http://localhost:8080/calculateDecimalOctal" method="POST">

Jenis penghitungan <br>

<input type="radio" name="type" value="decToOct"> Dec to Oct

<input type="radio" name="type" value="octToDec"> Oct to Dec <br>

Masukkan angka <br>

<input type="number" name="val" step="any"> <br>

<input type="submit" value="Hitung">

</form>

<% if (typeof result !== 'undefined') { %>

<br>

<div style="text-align: center; font-size: 2vw;">

<%= result %>

</div>

<% } %>

</body>

</html>