LAPORAN PRAKTIKUM

LOGIKA INFORMATIKA

DISUSUN OLEH:

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KAMIS 15.00-KELAS C

PROGRAM STUDI TEKNIK INFORMATIKA

FAKULTAS TEKNOLOGI INDUSTRI
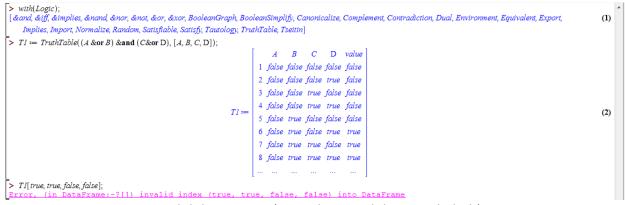
UNIVERSITAS AHMAD DAHLAN

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PRAKTIK A

```
> with(Logic);
[&and, &iff, &implies, &nand, &nor, &not, &or, &xor, BooleanGraph, BooleanSimplify, Canonicalize, Complement, Contradiction, Dual, Environment, Equivalent, Export,     (1)
   Implies, Import, Normalize, Random, Satisfiable, Satisfy, Tautology, TruthTable, Tseitin]
> T1 := TruthTable(A &or B, [A, B]);
```

$$T1 := \begin{bmatrix} & A & B & value \\ 1 & false & false & false \\ 2 & false & true & true \\ 3 & true & false & true \\ 4 & true & true & true \end{bmatrix}$$
(2)

```
> T1[true, true];
Error, (in DataFrame:-?[]) invalid column index (true) into DataFrame with 3 columns
> T1[true, false];
Error, (in DataFrame:-?[]) invalid column index (false) into DataFrame with 3 columns
> T1[false, true];
Error, (in DataFrame:-?[]) invalid column index (true) into DataFrame with 3 columns
> T1[false, false];
Error, (in DataFrame:-?[]) invalid column index (false) into DataFrame with 3 columns
```

Hasil dokumentasi (mengikuti modul tanpa diubah).

```
> with(Logic);
[&and, &iff, &implies, &nand, &nor, &not, &or, &xor, BooleanGraph, BooleanSimplify, Canonicalize, Complement, Contradiction, Dual, Environment, Equivalent, Export,     (1)
   Implies, Import, Normalize, Random, Satisfiable, Satisfy, Tautology, TruthTable, Tseitin]
> T1 := TruthTable(A &or B, [A, B], output = table);
```
$$T1 := table([(false, true) = true, (true, false) = true, (true, true) = true, (false, false) = false])$$
(2)

```
> T1[true, true];
```
$$true$$
(3)
```
> T1[true, false];
```
$$true$$
(4)
```
> T1[false, true];
```
$$true$$
(5)
```
> T1[false, false];
```
$$false$$
(6)

Hasil dokumentasi (versi saya).

PRAKTIK B

```
> with(Logic);
[&and, &iff, &implies, &nand, &nor, &not, &or, &xor, BooleanGraph, BooleanSimplify, Canonicalize, Complement, Contradiction, Dual, Environment, Equivalent, Export,    (1)
    Implies, Import, Normalize, Random, Satisfiable, Satisfy, Tautology, TruthTable, Tseitin]
> T1 := TruthTable((A &or B) &and (C &or D), [A, B, C, D]);
```

$$T1 := \begin{array}{c|ccccc} & A & B & C & D & value \\ \hline 1 & false & false & false & false & false \\ 2 & false & false & false & true & false \\ 3 & false & false & true & false & false \\ 4 & false & false & true & true & false \\ 5 & false & true & false & false & false \\ 6 & false & true & false & true & true \\ 7 & false & true & true & false & true \\ 8 & false & true & true & true & true \\ ... & ... & ... & ... & ... & ... \end{array}$$

(2)

```
> T1[true, true, false, false];
Error, (in DataFrame:-?[]) invalid index (true, true, false, false) into DataFrame
```

Hasil dokumentasi (mengikuti modul tanpa diubah).

```
> with(Logic);
[&and, &iff, &implies, &nand, &nor, &not, &or, &xor, BooleanGraph, BooleanSimplify, Canonicalize, Complement, Contradiction, Dual, Environment, Equivalent, Export,    (1)
    Implies, Import, Normalize, Random, Satisfiable, Satisfy, Tautology, TruthTable, Tseitin]
> T1 := TruthTable((A &or B) &and (C &or D), [A, B, C, D], output = table);
T1 := table([( false, false, true, true) = false, (true, true, true, false) = true, ( false, true, true, false) = true, ( false, false, false, false) = false, (true, false, false, false) = false, (true,   (2)
    true, true, true) = true, (true, false, true, true) = true, ( false, true, true, true) = true, (true, false, true, false) = true, ( false, false, false, false) = false, (true, true, false, true)
    = true, ( false, false, false, true) = false, (true, true, false, false) = true, ( false, true, true, false) = false, (true, false, false, true) = true])
> T1[true, true, false, false];
```
$$false$$ (3)
```
>
```

Hasil dokumentasi (versi saya).