

Nama	:	
Kelas	:	
Mata Kuliah	:	
Dosen	:	
Tanggal	:	

1 ket :

- Apk edukasi (E) = x_1
- Apk Market place (M) = x_2

$$Z_{maks} = 120.000 x_1 + 150.000 x_2$$

$$\text{Kendala jam developer} \leq 600$$

$$\text{Apk E : 8 jam } \quad 8x_1 + 12x_2 \leq 600$$

$$\text{Apk M : 12 jam}$$

$$\text{Kendala jam ui/ux} \leq 300$$

$$\text{Apk. E : 4 jam } \quad 4x_1 + 3x_2 \leq 300$$

$$\text{Apk. M : 3 jam}$$

$$\text{ketentuan : } x_1, x_2 \geq 0$$

$$D. \quad 8x_1 + 12x_2 \leq 600$$

$$4x_1 + 3x_2 \leq 300$$

$$\begin{array}{c|c|c|c} x_1 & 75 & 0 & (75, 0) \text{ B} \\ \hline x_2 & 0 & 50 & (0, 50) \text{ A} \end{array}$$

$$\begin{array}{c|c|c|c} x_1 & 75 & 0 & (75, 0) \text{ D} \\ \hline x_2 & 0 & 100 & (0, 100) \text{ C} \end{array}$$

$$D \quad 8x_1 + 12x_2 \leq 600$$

$$4x_1 + 3x_2 \leq 300$$

$$8x_1 + 12x_2 \leq 600$$

$$16x_1 + 24x_2 \leq 1200$$

$$-3x_2 + 0 \leq -600$$

$$x_2 \leq -600$$

$$-8$$

$$x_2 \leq 75$$

$$8x_1 + 12x_2 \leq 600$$

$$4x_1 + 3x_2 \leq 300$$

$$8x_1 + 12x_2 \leq 600$$

$$8x_1 + 6x_2 \leq 600$$

$$0 + 6x_2 \leq 0$$

$$x_2 \leq 0$$

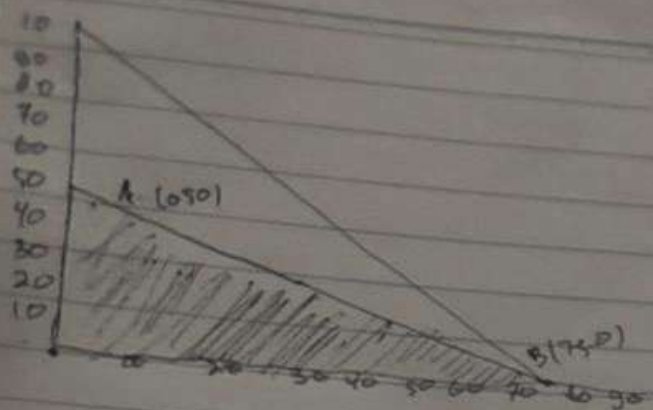
$$6$$

$$x_2 = 0$$

$$\text{Titik O} = (0, 0) \quad 120.000(0) + 150.000(0) = 0$$

$$\text{.. A} = (0, 50) \quad 120.000(0) + 150.000(50) = 7.500.000$$

$$\text{Titik B} = (75, 0) \quad 120.000(75) + 150.000(0) = 9.000.000$$



2.) Ket $S_{1A} = 12$ $S_{2A} = 14$
 $S_{1B} = 10$ $S_{2B} = 9$
 $S_{1C} = 9$ $S_{2C} = 11$

Mak 2 = $12S_{1A} + 10S_{1B} + 9S_{1C} + 14S_{2A} + 9S_{2B} + 11S_{2C}$

Batas kapasitas = Server $S_1 = S_{1A} + S_{1B} + S_{1C} = 100 \text{ TB}$

" $S_2 = S_{2A} + S_{2B} + S_{2C} = 120 \text{ TB}$

Batas permintaan wilayah A : $S_{1A} + S_{2A} = 80 \text{ TB}$

" B : $S_{1B} + S_{2B} = 90 \text{ TB}$

" C : $S_{1C} + S_{2C} = 90 \text{ TB}$

o Alokasi Profit Besar

- Laba tertinggi $S_{2A} = 14$ $A = 8 \text{ TB}$

Batas permintaan wilayah $S_{2A} = 11$

Sisa kapasitas S_2 - Batas permintaan wilayah A

$120 - 80 = 40$ (sisa S_2)

Permintaan A terpenuhi

- Laba tertinggi $S_{2C} = 11$

Batas permintaan wilayah C = 90 TB

Sisa kapasitas $S_2 = 40$

Kapasitas S_2 - Batas permintaan wilayah C

$40 - 90 = 10$ (kurang)

- Laba tertinggi $S_{1B} = 10$

Batas permintaan wilayah B = 90 TB

Kapasitas S_1 - Batas permintaan wilayah B

$100 - 90 = 10$ (sisa S_1)

B terpenuhi

4. Permintaan C kurang ≥ 10

Sisa kapasitas $S_1 = 10$ TB.

• Sisa kapasitas S_1 - Permintaan C

$$= 10 - 10 = 0$$

C terpenuhi

Jadi semua Permintaan terpenuhi

• Total Laba maksimum.

$$Z_{\max} = (S_1 \cdot 10) + (S_2 \cdot 9) + (S_3 \cdot 14) + (S_4 \cdot 11)$$

$$= (10 \cdot 10) + (10 \cdot 9) + (80 \cdot 14) + (40 \cdot 11)$$

$$= 900 + 90 + 1120 + 440$$

$$= 2550$$

kes.

Labanya terbesar,

$S_1 \rightarrow$ unitnya ≥ 80 TB.

$S_2 \rightarrow$ " " ≥ 80 TB

$S_3 \rightarrow$ " " ≥ 40 TB

$S_4 \rightarrow$ " " ≥ 60 TB

Labanya maks = 2.550 TB.