

3.1)

month	1	2	3	4	5	6	7	8
Estimated storage required (TB)	140	200	300	1000	1400	500	600	900

x_i = จำนวน server ที่ซื้อเดือนที่ i

y_i = cloud

obj : $\min (690(8y_1 + 7y_2 + 6y_3 + 5y_4 + 4y_5 + 3y_6 + 2y_7 + y_8) + 40000(x_1 + x_2 + x_3 + x_4 + x_5 + x_6 + x_7 + x_8))$ #cost

st : $z_1 = y_1 + 24x_1 \geq 140$

$z_2 = z_1 + y_2 + 24x_2 \geq 340$

$z_3 = z_2 + y_3 + 24x_3 \geq 640$

$z_4 = z_3 + y_4 + 24x_4 \geq 1640$

เพียงพอ $z_5 = z_4 + y_5 + 24x_5 \geq 3040$

ทุกเดือน $z_6 = z_5 + y_6 + 24x_6 \geq 3540$

$z_7 = z_6 + y_7 + 24x_7 \geq 4140$

$z_8 = z_7 + y_8 + 24x_8 \geq 5040$

$x_i, y_i \geq 0$

$\therefore \text{obj} : \min 5520 y_1 + 4830 y_2 + 4140 y_3 + 3450 y_4 + 2760 y_5 + 2070 y_6 + 1380 y_7 + 690 y_8 + 40000(x_1 + x_2 + x_3 + x_4 + x_5 + x_6 + x_7 + x_8)$