

REPORT

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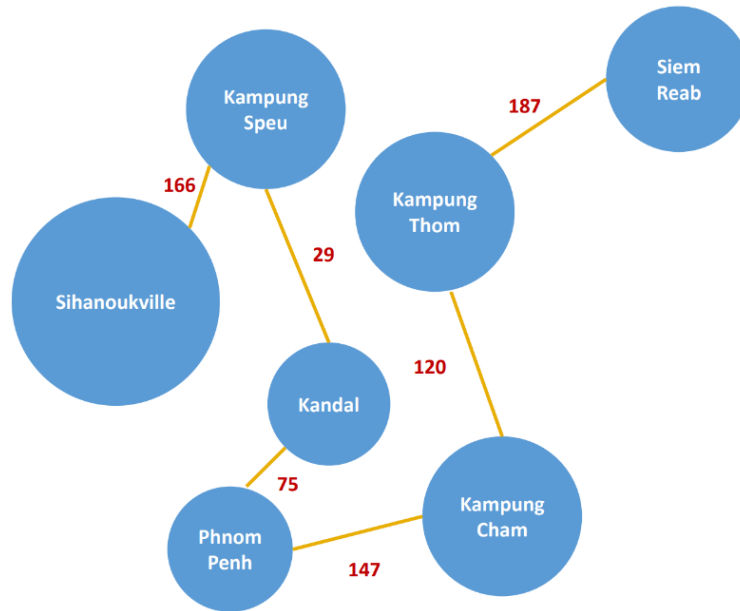
GRAPH

LAB 09



Consider the graph representation location between provinces and cities in the Graph lecture note.

- 1-Represent this province location graph using edge list representation.
- 2-Represent this graph using adjacency matrix. Let's draw this matrix
- 3-Represent this graph using adjacency list. Let's draw this matrix.



Sihanoukville = SHV, Kampong Speu = KPS, Kandal = KD, Phnom Penh = PP
 Kampong Cham = KPC, Kampong Thom = KPT, Siem Reap = SR

- 1- Represent this province location graph using edge list representation.

+ Edge List

$[(SHV, KPS, 166), (KPS, SHV, 166), (KPS, KD, 29),$
 $(KD, KPS, 29), (KD, PP, 75), (PP, KD, 75), (PP, KPC, 147)$
 $(KPC, PP, 147), (KPC, KPT, 120)$
 $(KPT, KPC, 120), (KPT, SR, 187)$
 $(SR, KPT, 187)]$

2- Represent this graph using adjacency matrix. Let's draw this matrix

Draw this matrix

	SHV	KPS	KD	PP	KPC	KPT	SR
SHV	0	166	0	0	0	0	0
KPS	166	0	29	0	0	0	0
KD	0	29	0	75	0	0	0
PP	0	0	75	0	147	0	0
KPC	0	0	0	147	0	120	0
KPT	0	0	0	0	120	0	187
SR	0	0	0	0	0	187	0

3- Represent this graph using adjacency list. Let's draw this matrix.

Adjacency List

Date.	No.
SHV →	KPS 166
KPS →	SHV 166, KD 29
KD →	KPS 29, PP 75
PP →	KD 75, KPC 147
KPC →	PP 147, KPT 120
KPT →	KPC 120, SR 187
SR →	KPT 187