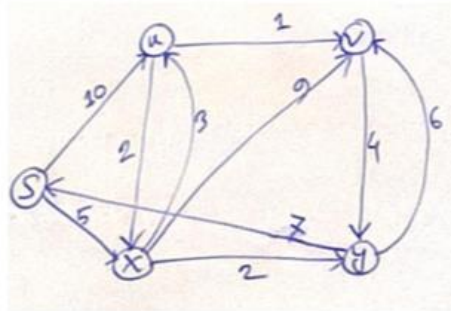


## Dijkstra's Algorithm

⇒ Deals with non-negative edge weights.

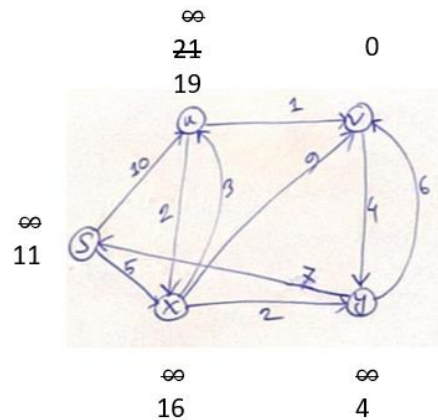
**Example 1:**



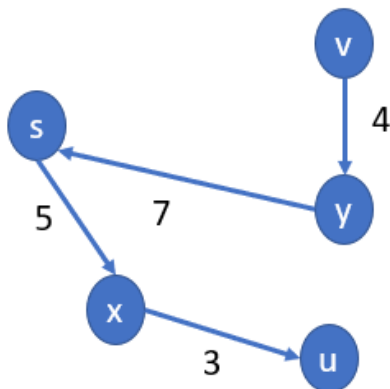
Source vertex: v

Solution:

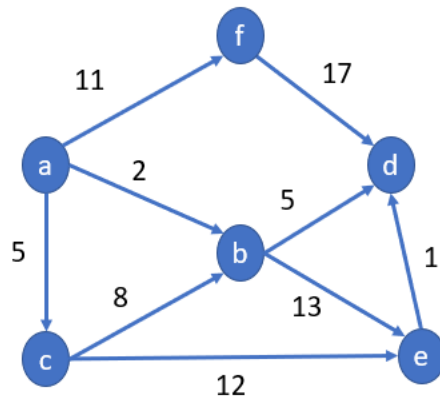
Visited Vertex	s	u	v	x	y
initially	$\infty$	$\infty$	0	$\infty$	$\infty$
v	$\infty$	$\infty$	Cross	$\infty$	4
y	11	$\infty$		$\infty$	Cross
s	Cross	21		16	
x		19		Cross	
u		Cross			



Final Graph:



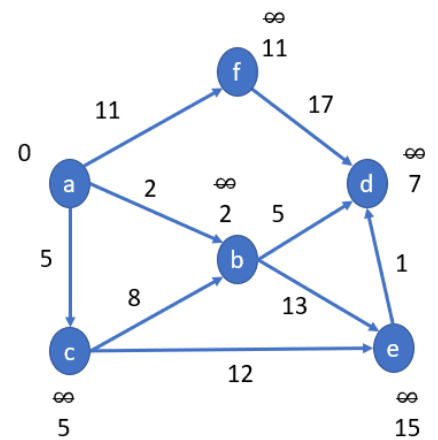
Example 2:



Source Vertex: a

Solution:

Visited Vertex	a	b	c	d	e	f
Initially	0	$\infty$	$\infty$	$\infty$	$\infty$	$\infty$
a	Cross	2	5	$\infty$	$\infty$	11
b		Cross	5	7	15	11
c			Cross	7	15	11
d				Cross	15	11
f					15	Cross
e					Cross	



Final Graph:

