

Algorithmen und Datenstrukturen

Tutorium XII

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06. - 09. 07. 2015



1 Dijkstra

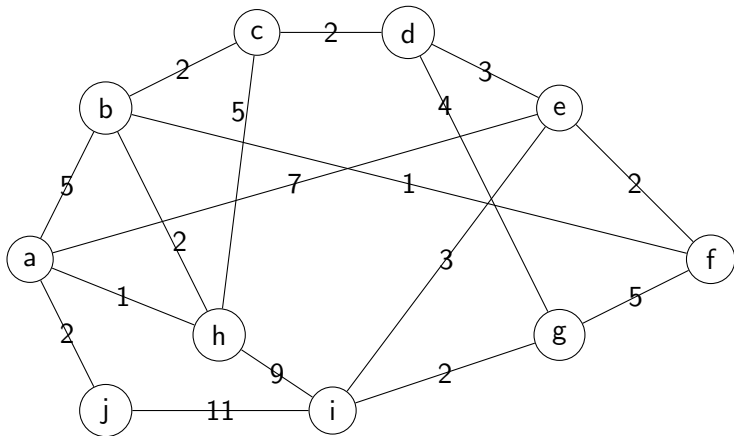
■ Schreibtischttest

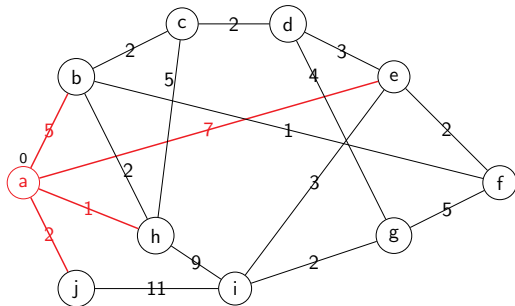


Aufgabe 1

Führen Sie in dem folgenden Graphen einen Dijkstra-Schreibtischttest durch. Startpunkt sei Knoten a.



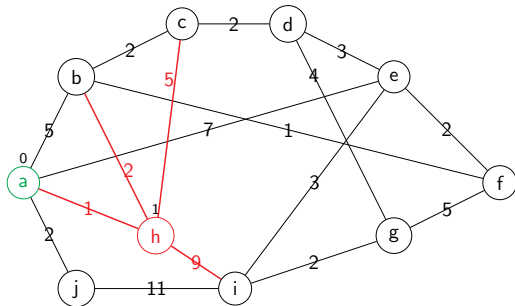




Priority Queue (a,0)

Knoten	a	b	c	d	e	f	g	h	i	j
Distanz	0	∞	∞	∞	∞	∞	∞	∞	∞	∞

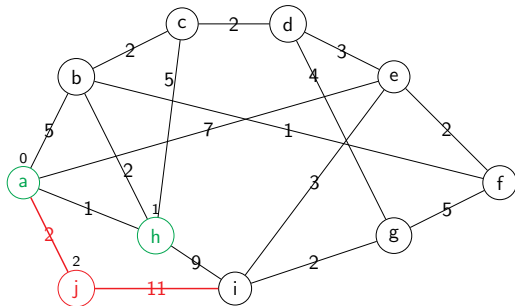




Priority Queue (h,1)(j,2)(b,5)(e,7)

Knoten	a	b	c	d	e	f	g	h	i	j
Distanz	0	5	∞	∞	7	∞	∞	1	∞	2

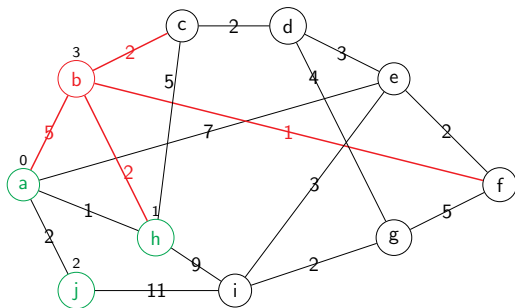




Priority Queue (j,2)(b,3)(c,6)(e,7)(i,10)

Knoten	a	b	c	d	e	f	g	h	i	j
Distanz	0	3	6	∞	7	∞	∞	1	10	2

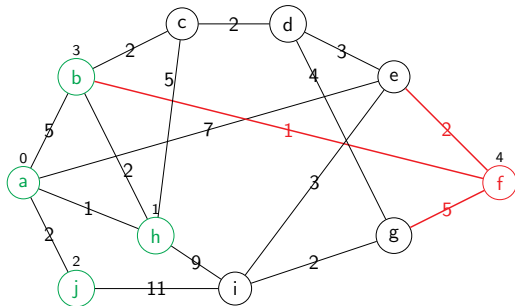




Priority Queue (b,3)(c,6)(e,7)(i,10)

Knoten	a	b	c	d	e	f	g	h	i	j
Distanz	0	3	6	∞	7	∞	∞	1	10	2

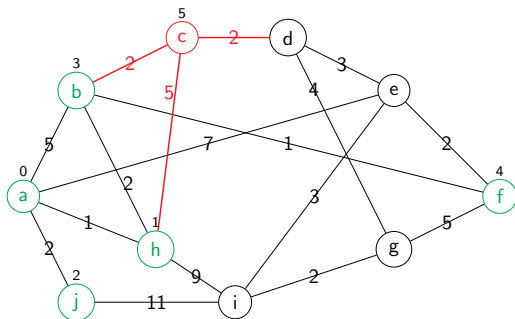




Priority Queue (f,4)(c,5)(e,7)(i,10)

Knoten	a	b	c	d	e	f	g	h	i	j
Distanz	0	3	5	∞	7	4	∞	1	10	2

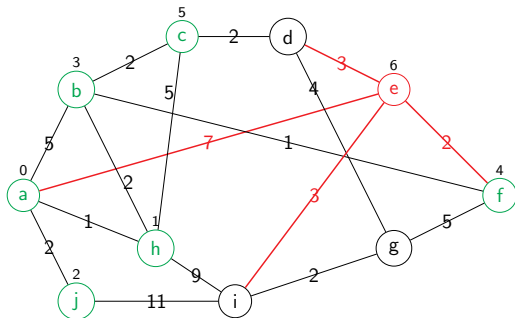




Priority Queue (c,5)(e,6)(g,9)(i,10)

Knoten	a	b	c	d	e	f	g	h	i	j
Distanz	0	3	5	∞	6	4	9	1	10	2

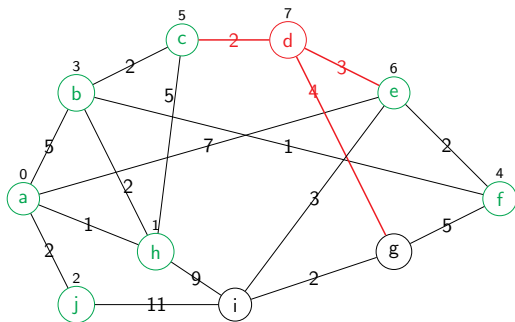




Priority Queue (e,6)(d,7)(g,9)(i,10)

Knoten	a	b	c	d	e	f	g	h	i	j
Distanz	0	3	5	7	6	4	9	1	10	2

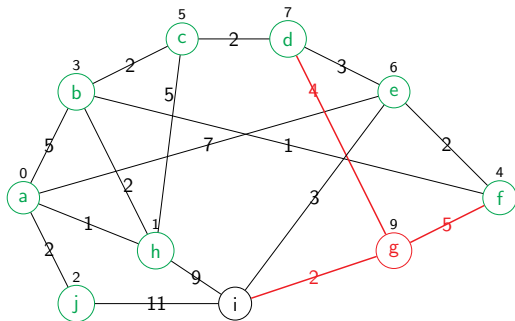




Priority Queue (d,7)(g,9)(i,9)

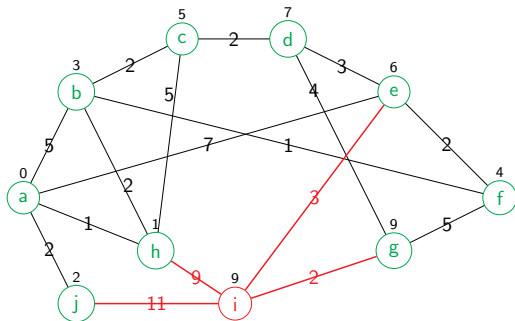
Knoten	a	b	c	d	e	f	g	h	i	j
Distanz	0	3	5	7	6	4	9	1	9	2





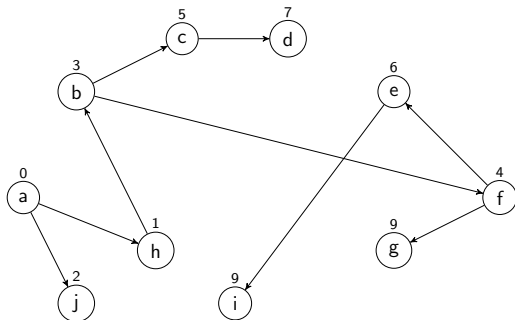
Priority Queue		$(g,9)(i,9)$									
Knoten	a	b	c	d	e	f	g	h	i	j	
Distanz	0	3	5	7	6	4	9	1	9	2	





Priority Queue	(i,9)									
Knoten	a	b	c	d	e	f	g	h	i	j
Distanz	0	3	5	7	6	4	9	1	9	2





Knoten	a	b	c	d	e	f	g	h	i	j
Distanz	0	3	5	7	6	4	9	1	9	2

