Program-02	
Distance Vector Algorithm	
All Carlottes Control of the Control	
Network Topology:	
	A-10
class iopology;	
def-init-(Self, array-of-points):	100
self. nodes = assay-of-points	
def-init-(Self, array-of-points):  Self. nodes = array-of-points  Self. edges = []	
def add_direct_connection(self, p1, p2, cost);  self.edges.append(cp1, p2, cost))  Self.edges.append(cp2, p1, cost))	are and second
Self. edges. append ((pi, pr. cost))	
Self. edges. append (cpl. pl. cost)	
10 1: Landers Callin Callin	
det distance vector-routing (Self): iveport collections	
For vode in Self. nodes:	
dist = collections. defaultdict(int)	Total
next-hop= Evode: wode }	
for other-node in Self-nodes:	
if other node 12 node:	
dist (other-node) = 100000000	
# ·	infinit
# Belwan Ford Algorithm	
for i in range (leu (self. nodes)-1):	
for edge un self. edges:	
soc, dest, cost = edge	
if distissed + cost a distidust]:	
dist[dest] = dist[soc] + cost	
Langer South State of the Control of	

if Soc== node:	
clif Sxc in next hop:  next-hop[dest] = dest  clif Sxc in next hop:  next-hop[dest] = nex-hop[sxc]  Self print xouting-table( node, dist,  print ()	2.2
clif Exc in west loss.	
Mert-hopfdest? = wer tooca	
Self-print routing table ( under 1)	
Drivit ()	next pob
def print-routing-table (self, node, dist, u	
Drint & Routing table for Sundari	bat-nob):
point ('Dest It cost It Next Hop'	
for dest, cost in distriteurs():	
print & (f' Edest 3/t Ecost 3/t E	
Daint Act (COST LIES	Idest 3?")
def start(self);	(CEST S)
DOX8	
Dase	2 20 2 20 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Create the Topology	
that the copology	
Moder = 8 'A' B' C' D' F' 3	
MOREN = EM, O, C, D, ES	
t = Topology (nodes)	1
tadd direct-connection ('A) B; 1)	
t add direct connection A (1)	
+ add discal coursection by	and the second
to add disect councition(c.D.	
todd-direct connection('c', D', 4)  todd-direct connection('C', D', 4)  todd-direct connection('D', E', e)	
Edistance vector-routing()	
WIATOMIC VILLE	
	حصيار

Start	
nodes - input ('Enter the nodes: '). Split()	
COSCUE AND	
t = Topology(vodes)	
edges - int Circuit ('Enter the mucher of com	de Ctiville
edges - int (input ('Enter the number of com for -in range (edges): sxc, dest, cost = imput ('Enter Esxc) [dest]	(1040)
SEC, dest, cost= import ('Enter Esra [dest]	(cost)
t. add-direct-connection(sxc, dest, int(cost	3)
t. distance-vector-routing()	
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