*	BEST FIRST SEARCH 3-
Ø	Best-first search algorithm always selects the Path which appears best at the moment.
	It is the combination of depth-first search and breadth - first search algorithm.
•	Best first Search falls under the category of Hewistic search or informed search.
c	The aim is to reach the goal Brom the intial state via the shortest path.
0	It is implemented by the priority Queue.
**************************************	In BFS, we expand the node which is closest to the goal node. The "closeness" is estimated by houristic hon.
\rightarrow	Algorithm:
Step 1.	- Place the starting node into the OPEN list.
\$tep 2:-	If the OPEN list is empty, stop and return failure Handwritten notes by jpwebdevelopers'

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Step 3:- Remove the node n, from the OPEN last which has the lowest value and places It in CLOSED list Step 4: - Expand the node n, and generate the successors of node no step 5: Check each successors of node n, and find whether any node is a goal node or Example node Han D 5

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	Solution: - Starting from S, we can traverse to A (h=9) or D (h=5). We choose D, as it has lower hewristic cost.
	to A (h=9) or D (h=5). We
<u> </u>	choose D, as it has lower hewistic cost:
->	Now from D, we can move to B Ch=4) or
	E (h=3). We choose & with lower cost.
	L (1)=0). We choose c with more
->	finally from E, we go to Gr Ch= 0).
	Path: S - S - D - E - G.
	Path: S - D -> E -> G.
	(a) 1 STELUP
	Indialization)-
	Open [A,D], closed [S]
	Open en so , erosa ess.
	iteration 1: open CAJ
	(A) (D) Closed [S, D]
	(h=9)
	Iteration 2: Open [A,B,E]
	Closed [SIO]
	By (E) : open[A,B]
	1-0-1 CCD [7]
	closed [S,D,E]
	(6) $i + contin = 7$
	iteration 3:- open [A,B] Closed [S10,E,G
	Closed USIN, E, G
	Hence the final solution: S > D > E -> G
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	Advant a ans o	3
	Hdvantages:-	
160	It takes fewer steps to reach o	agal.
7	IC tures fewer sups w races	
7	The alanyithm is more efficient t	han
15 m	The algorithm is more efficient to BFS and DFS algorithms.	8
	010 W/G 210 Wg0/42/113	6
0	Disadvantages:-	4
->	It can twin into vinguided DFS 1 the Worst Case.	'n
	the Worst case.	4
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