

# ACTIVITY-3 (MANUAL DFS & BFS)

## 1) Graph-1

### • Depth-first Search

Event	Stack
Visit A	A
Visit B	AB
Visit E	ABE
Visit F	ABEF
Visit D	ABEFD
Visit C	ABEFD C
pop C	AEEFD
pop D	ABEF
visit G	ABEFG
pop G	ABEF
pop F	ABE
pop E	AB
pop B	A
pop A	
Done	

A B E F D C G



## 2) Graph - 2

### • Depth-first Search

Event	Stack
Visit A	A
Visit B	AB
Visit E	ABE
Visit D	ABED
Visit F	ABEDF
Visit C	ABEDFC
pop C	ABEDF
Visit I	ABEDFI
Visit H	ABEDFIH
Visit G	ABEDFIHG
Visit J	ABEDFIHGJ
pop J	ABEDFIHG
⋮	
Done	

ABEDFCIHGJ



# 1) Graph-1 (BFS)

Event

Queue

Visit A

Visit B

Visit C

Visit D

Visit E

Remove B

Remove C

Remove D

Visit F

Remove E

Visit G

Remove F

Remove G

Done

B

BC

BCD

BCDE

CDE

DE

E

EF

F

FG

G

A B C D E F G



## 2) Graph-2 (BFS)

Event	Queue
Visit A	
Visit B	B
Visit C	BC
Visit D	BCD
Remove B	CD
Visit E	CDE
Remove C	DE
Visit F	DEF
Remove D	EF
Visit H	EFH
Remove E	FH
Visit G	FHG
Remove F	HG
Visit I	HGI
Remove H	GI
Visit J	GIJ
Remove G	IJ
Remove I	J
Remove J	
Done	

ABCDEFGHIJ