Date : 41	9 (24 Exp. Title	
Exp. No.	01	Page No.
	le write a minu les	1
	of n dements and perform the following as Incort a new at a specified position to Delete an element vatia specified position	i'c array
	The theest of he	Open AP
	be Delete an element vat a specified possition	0.
	d. Exet	lon
THE REAL PROPERTY.	in tair	1400 m
	# Produde & Stdiooh's	Us Exit
MARIE	ent main ()	Voteria .
	•	
	ent *P, ele, ch, n, & , pos P is pointer to creat	e adian
	Scanf ("Enter no. of elements to create an arr	ay: /+");
TE STATE		241.53
	P= malloc (not style of (Port)); 11 use malloc to c	reale dynamic
	print f ("Pynamic array created n"); Print f ("Friter %d elements \n", n);	array.
	for (120; in; i++) II read on the elements	to . a.m.
	Scant (66% d", & PEIJ);	10° 100 10° 10° 10° 10° 10° 10° 10° 10°
	g to the country general	John Enter
	while (1) Houpeals the menu	91
	2 9-11/11/11/11	131311111
	printfluin 1. Insert in 2. Delete in Display	in 4-Excetin
	Enter your choice: \t');	AXI 4P
	Scanf ("olodi", lch); Switch (ch).	reford .
	\$ SWITON CUI).	
	case 1: printf ("In Enter element and pos	(0 to % a)
	to POSCIET: 1", n-1);	
		BEAT STORE

Date:	HOLE BEEN	Exp. Title	Page No.
Exp. No.			2
	Scant	(11.1.d.1.d", 4 ele, & pos);	
	realloc	(P, (n+1)* size of (Pn+)); 11 increase	the Size of array
	1 n= n+1	1: Hundate neur (128)	
	for (12)	n-1; 17 = pas; 12-)/1 Start moving a	ll the element
	9	to neset positions	
	P[i] =	P[i-1];	
	3		1 6 01000
	PLPOSS	= ele; 11:nsert the new element vo	-pos Ption
	Gueak	9.	-pos (11 1 n-1);
	.Case 2:	prints ("Enter paitson (6 to %d) to d	elett a li 11. The
	Scar	1 ("/d", & pos) i.	1200 dement
	for (by moving next element of	no to peach
	9	by moving next element of	703 10 1
	7 1-	-1] = Mi]. previous pas.	
	9	- 1: 11 10- the count total ale	ment.
		7-1; // update the count total de	170010
	C-42 38-	Ke;	0,1);
	lase 5:p	(=0° 210° 241)	
	7.	(izo; izø; i++).	
	Dr.9	mek " of ax+ ", PLIJ);	
	3	25 (40)	
	- /	ak; ps.xox	
	Lace U.	exit (0);	
	2		
	2		
	return 0	6	
	6		_
			_

Date: 9 /	10/24 Exp. Title	Page No.
Exp. No.	02	3
3	. Write a Menu dreven program for the follow	ing operate
	a breate la sparse matrix.	
	c. Exit	
	C. Cat	
77.41	*/	
Part Coll	# Podude (StdPo. ht.	
	# include (Stalip . h)	- 1
	# define MAX 100.	
Furis	Stouct term	
	\$.	
1134	int rows;	
	Pot Columnia	
	ent value;	
	3;	
	Struct deam a EMAXJ, b [MAX]	
	Vold create (); 11 declaring of a function vold transpose ();	
	Yord display (int no Stouct term m []);	
	int main ()	
	\$	
	ent chorce;	
	while(1) 11 tont ? nuasly repeats the mer	ru
	\$	
	printf (" \n Menu: \n");	3474
	printf ("1. Create spasse matrix: \n");	
	pointy ("a. Transpose of sparse matrix)	11);
	print ("3. exit \n");	THE T
	printy ("Enter your choice:")	re di

Viels.	
Date:	Exp. Title Page No.
Exp. No.	ч
	Scant ("1./d", & choice);
	Switch (choice)
Hills	\$ 100 miles and the second sec
	Case 1: Create ();
	break;
	Cazez: Transpose();
	break;
	Care 3: exet (0);
	3
	3
10.616	return 0;
والموانات	3
	void éseate.
	\$
	11 Port matrix [10][10];
	ent e, nows, loloums, n; // Starting endex from 1 since
SHIN	printf(" \n Enter no. of orows, columns and no. of.
	values & (1) 9
< 10.0 m	Scant ("of.do/.do/.do/.do/.dows & rolumns, &n),
1.13.	acoj. nows = sows;
	a [0]. columns = columns;
	ato3, value = ny
	for (121; 1/4n; (++)
	\$ 1
	printf (" In Enter row, col and value: ");
	scan fl "/. d./.d./.d. 12, la TiJorows & asil column
	a dis value);
	3
	desplay (n.a) ,
7 15 100	3

	R With	Page No.
)ate:	Exp. Title	5
Exp. No.		
	void transpise ()	
	ş	
	int 1,j, K=1,n;	
	ne a EoJ. value;	
	bLOJ. rows = a LOJ. Columns;	
	bEOJ. columns = aEOJ, 90008;	
	b[o]. value = n?	
	for (120; 1/2=α[0]. columns; 1++)	
	\$	THE SAME
	for (je1; j<=n; j++).	
	if (asj). columns = = i).	
	s s s s s s s s s s s s s s s s s s s	The Lates
	b[K] · rows = orij · columns;	
	b[K]. columns = a[i]. rows;	
	b[K] value = a(ij, values;	
	K++;	
	2	
	3 display (n,b); or should be a second	
	3 / 3/ 000	idalah jir
19-11-11	display (n.b); or	NEW TO
Billia	3	
	void display (int values, Struct term m	<u>LJ)</u>
	19	setue an
	int ";	
	printf ("In Row It -column It value in "1);	
	for (120; 12= valuez; 1++).	
	\$	
	In, swore. [1] m, "1 / b. /. + b. /. + b. /") \$thisq	17 .columns,
	m Li]·value);	
	3	THE REP

Exp. No. 03 3. Write a menu driven of program for the following. Stack operations using arrays. 1. Push d. POP. 3. Status 4. Display 5. Excit Support call the operation, with use defined junction #foclude < Stall bohr. # foclude < Stall bohr. # define [MAX_Size 5	3. U		6
Stack operations using arrays. 1. Push a. PoP. 3. Status 4. Display 5. Exit Support wall the operations with we defined junction # include < stalibohy. # foclude < stalibohy. # define [MAX_SizE 5 int Stack [MAX_SizE]; int ele, top = -1; // global ideclaration. void push (int); // declaring function. int pop(); void status (); void display(); int main() // differen program			
int cha	# # # # Pro Voi Pro Vo	Stack operations using carrays. Push So Pop. So Status So Display Foclude (Staloon) Produde (Staloon) define [MAX_Size 5] At Stack [MAX_Size 5] At ele, top = -1; Il global declaration. Adoption (int); Il declaring function. A push (int); Il declaring function. A pop(); A display(); A main() Il desire program A display();	re zollowing
		Scane ("% of ", & ch); Switch (ch) 119t is used for optional -ch	

Date:	Exp. Title	Page No.
Date:		7
Exp. No.	East white the State of the Sta	
	Cace 1: pornty ("Enter push elements:");	- Buga
	Scanf ("/d", & ele);	499 18
	push (ele); 11 push elements to function	of push.
	break; 11 breaks the case.	
R. S. S. S.	Lase 2: ele = pap ();	4373.5
	printf ("Dopped 1/0 d", ele)	of District
HILE.	break;	nd same
	race 3: Status ();	La servette
	break ();	thought.
ZIZE.	case 4: display ();	400.0
11111	break.	87.412
West.	Case 5: tait (0)3	100424
Lau II	3	1200
	3	
	return 0;	Ag Ama
	3	T. March
	void push (int de) Illocal variable	Markey
	\$	9344
	if (top== MAX_SIZE-1) /1 to wheck Stack	is emote
	or not.	
	printf (" Stack is fest");	The or
	3'	21 73123
	Elses	e brodes
BE PLAN	Stock[++top]=cle;	
	3	To be
	4	- SWEET
	ent pop()	Tu Now
	\$	- 41912
		pula arci

Date: Exp. No.		Exp. Title	Page No
	91. ()	op = = -1).	
	S		Class Supply De
	poor	of (" Stock is emoteril);	
7 7 7 4	2	of (" Stock is empty");	
17 17	else		
	\$	Paralleland, Aller Jens Hall	TRAUGHAMAN.
	ou	rum Stock (top)	Landen Lill
	2	Tank Aut and a second	The second
ROLL	3		
	void &	atus ()	
1111	5	State Control of the	
	if to	p = = -1).	
	5		
	print	of ("Stack Ps empty");	
	3		
	dse if	(top == MAX-SIZE-1)	
1 6416	\$ 0		
	pri	ntf (" Stack is just");	
	3'		
	else &	play (); 20 20 20 20 20 20 20 20 20 20 20 20 20	
	dis	play ();	
	3	207	
	3	/	
Supp. Ed.	word das	play ()	
	\$		
	prient	(" Stack elements are: \n");	
	708 (i=	top ; 17=0 ; 1).	
	print	+ ("%d \n", Stock[i]);	
	4	7 3(3(1) 1)	
	4		

Date: 23-1	D-24. Exp. Title	Page No.
Exp. No. 4		17.00
4.	wifter a c program to Evaluate post fix / suffe	or Europeani
	on which contain only digit using stack s	upport use
	idefined junction to Evaluate Postfix Exposes	00
THU	A THE PARTY OF THE	1/10
	# enclude < std cook>	
	# include < math. Ly /1 for pow () function	
	# include x ctype on 11 for is deget () function	on
	# define max 10	
	int Stack [max];	
TX 7	Pot Top = -1 . Ele;	
	vold push (lot):	
	Pat pop ();	
No.	rold preorety (into charaint);	
	ent main () §	
	80+1, OP1, OP2;	
	char Exp [20], symbol;	9 mm).
	print + ("Enter input valid Sufix express	100%)
	Scanf ("6-1-5", expression);	
	for (1:09 expression[1]:1\0';1++)	
	\$	
	Symbal = corpression[i];	
	1) (Isdigit (symbol))	
	such le bel cotto	
	push (symbol -101);	
	else	
	ise	
	2	-
	$OP^2 = POP();$	W. /
	opi = pop();	
	evaluate (op1, symbol.op2);	
	3	

Date:	Exp. Title	Page No.
		10
Exp. No.	(11 - 11 - 11 200 ());	Valence Communication
	popot (" result = -/.d", pop ());	The state of the state of
Tales I	return 0:	
	3	
	roid puch (int elu)	
	Stack[++ + op] = ele;	The second
		THE WATER
	3	
	fot pop()	
	return Stack[top];	THE STATE OF THE STATE OF
20 V 10	3	THE PERMIT
	void evaluate (int opt, than Sym	hal got op2)
	\$	203
7777	int res;	
Val 6	Switch (Symbol)	
THE	ş	
	Case + 1: res = OPI + OP 2;	3
OBJECT OF	puch (ry); break;	(2)
CRIA!	caer '-1: res = OP1 - OP2; push (ru); break;	60
DE LE	push (ru); break; Mar	
THE	con + 1: res = OP1 * OP2; out	
	Push(res); break;	
	100x(1): 805 = 0P1/0P2;	
	push (res); break;	
	ease 1-1-1: res = 0P1 %. 0P2;	
	push (res); break;	
	Lace + 1 : 8 45 = 0 P 1 1 0P2;	
	puch (res); break;	G-LUNIALT/
S. Let	3	
	3	

Date: 30-	10-24 Exp. Title	Page No.
Exp. No.		1)
5.	to post zex Expression which contain ah operands & operators (+,-,*,/,./,,)	Expression pha numeri
	# include < Staiooh>	
	# Pochide Lotype on.	
	# defene MAX STZE 10	
	than stack [20];	
8336	9nt to 9 = 1 ;	
# 16 8	vord puch (char sym);	
	char Pop();	
	Pot prieorety (chausum);	
VI CO	int main ()	
	5	
11	lat : = 0;	
	than exp[20];	
	Char Sym, ele;	
	Print + (" enter a valid Pofix expression:")	3
<u> Lan</u>	Scant ("-/05", exp)"	
	prenty ("In post fix:")	
	for (1:0; exp[1] (=1 \0'; 1++)	
	\$	Minter III.
	Sym=socp[i];	
	if (isalnum (Sym)).	
	- \$	
	pn°n++ ("1.c", sym);	
	3	
	else ig (sym = = '(')	W. CANTE
Einkil.	puch (Sym);	
	else 19 (sym = = (91)	
THE REAL PROPERTY.	ફ	

Date:	Exp. Title	Page No.
Exp. No.		12
STATE I	while ((de=pop()!='('))	1 100
	printf ("1./.c", ele);	
	(year) * (sye) ; not served xight base	204rs3
12244	else.	
	\$ 15 1 X 1 X 1 X 1 X 1 X 1 X 1 X 1 X 1 X	
	while (priority (Stack(top)) >= priority(s	Am)
	prion+ ((10% c", pop ());	Sinter
	push (sym);	
	3 A-A A- *dA 2 X3;	7.634
	3	
	while (top 1 = -1)	
	Print (11.1.1.1., POP());	
689	3	
	actus 0;	
THE RES	3	
	voedpush (charcle)	11111
	9	28 2
	Stack[++top]=ele;	
	3	
	chae pop ()	
	{	
	return Stack [top];	
	8	ATT I THE TANK
	of priority (charsym)	
	? (sym == :(')	
	returno:	ROVER
	ig (Sym == + + 1 Sym == -1	JEY'S.
		THE CO. IN
	Jf (Sym== "* 11 Sym=="/" 11 Sym== " 11	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

:		Exp. Title	4-51			
No.						
	reti	(cum	- 2 1/2	Y		
	18	(Sym: eturn3 turno;	3			
7	8	/	(h)	38)		
		W STONE	30,			
		925				
	de de	\$3134.A				
	THE PARTY OF	Market State				
		Car sin			i name	-510
	ed e	E E STATE	¥4.01.55			
	a delete	2 (3)				
	e E frie					
	gra d					
	LOKE!	(0)				
	594 2 1	Stan in				- 446
		Entertail	MEL SAL		lefter of	
		10 9 A				
				13.73		

Date:	Exp. Title	Page No.
Exp. No.	THE CANAL STREET, STRE	and my
6.	write a menu driven a program to empl	ement
2018	zollowing ctrailer Queue operations using +	trays.
1.	Insert	ALL MANY
20	Delete	1503.31
8.	Display	ou Aslins
ч.	Ext + 1	H Alad
82(140)		3,0000
	# Produde Estato-h>	nowa .
	# Poclude Kstallboht.	Habe 3 1
		3,000
	fort i , ele; near =-1, front =-1, count=0;	1303.00
184-102-	Prit Cqueue [MAXSIZE]	g Johns
Jake took	void insert (int ele);	F. Otho
N ARCH	Pn+ delete ();	Addition .
	ent main ()	west a
	§	Halin Bill
	Pot ch;	dara e
14 KB 0/2	while (1).	172300
Survey Life	\$ 200 miles from	MANINGS
3 -1-7 (+4)	print of (11 /n menu: In 1. insert In 2. delete In 3	Re displan
	in 4. Esustin Enter your Chorce: ");	aspay
1 1 1 1 1 1 1	Scanf (" % d 19, 2 ch);	****
	switch (ch).	and a
	\$	Hologia
		120 8
	Case 1: print f (" enter the elements : ");	1000
	Scanf (61% d, & ele);	
		19703
	A THE STREET STREET STREET STREET	19 HE WALL

```
Posert (de);
 break;
cona: de : del de ();
      printf ("quie elements deleted ; 1/2 ", ele);
     break;
case 3: display ();
    break;
caux: exit (0);
 return 0;
rold Ensert (intele)
                      P of ( count == MAXSIZE)
 prentf (" Onene is full: In");
else
real = (real+1) ./. NIAXSIZE;
Equene Evreae] = ele;
 count ++;
 Pat deleter
if (count == 0)
  prints ( ( awere is Empty 1 m");
else
```

Date:	Exp. Title	Page No.
Exp. No.		
- MARIE	٤	
W. Krin	front = (front+1).1. MAXSIZE;	
	ele = Cqueue [foort];	
1645	count ;	
	printf (" deleted element % d", ele);	
	3	
	3	
	vord desplay	
	\$	
	prenty (" Queue element are: \n");	
	for (1º2 front + 1; P! = oreal; " = ("+1) "/-	MAX(TOF)
		1111111111111
	printif (4.d ", cqueuezv);	HAR
A THE		
	prent ("1.d", (queue [i]);	
	4	
	W 38	
	CAMPAGE AND	Bains and Sale

Date:		Exp. Title	Page No
Exp. No. 3)		THE R
4-5	write a operation	menu defren program for the joll M of spagle linked liet student of DSN, ROII NO, Name.	ata with
<u>1.</u> \		LL of 12 number of Students data by	Presting
Ø->	perjoen	inserting 1 Deletion at end of SIL	
3.1-	borform	insertion / Deletion at Joont of SIL	
40>	Display to	ne Status of SU & count numbers o	& nodes
5.}	Exit		
	program:		
	# includ	le ES+dfo.hr	
		Student	
	800 100		
	one top	1 no,	
		ame [50];	
		Studend * Link;	ty T:
	8;		
	type de	f Struct Student * NODE ; c=D;	
	1nt	C = D;	
	HILL THE		College College
	4 3 30		

Date:	Exp. Title	Page No.
Exp. No.		THE SE
	NODE first = NULL;	
	NODE (reate node ();	
	ropd create sil it;	
	votd display SCL ();	Tellow III
	vold insert front ();	
	void insert end ();	12 12 13 13 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	vord delete foort ();	
	void delete end ())	
	ent-mouln () ?	
	int ch; while (1) \$	
	print f (" In menu \n 10 create see \n 2. DBP	lay SUN
	3. Insert good in 4. Inserted in S. Delete.	front 10.6
	pelete end in 7. Exit in.	10000
	Scant (" o/.d", &ch);	RITE DE
	Switch (ch) \$	
	LOUET: Create SU ();	Vin Line
	break;	
	case 2: display SIL ();	
	break;	
	earl 3: I resert front ();	
	break;	
	case 4: Insert end ();	
	break;	
	Ease 5: delete front ();	
	break?	Hamilton
	Lace 6: delete end();	
	breake.	
	care 7: escêt (0);	
	3	The state of
THE RES	2	

Date:	Exp. Title	Page No.			
Exp. No.					
	outurno;				
	3				
TRUE	NODE create rode () &				
Marin.	NODE temp = malloc (Size of (Struct Stud	ent n;			
	print (" Enter roll number, usn, name: ");				
	scanf [". 1.d . 1-5 . 1.5 ", & temp -> ozollno, temp-> USN, temp				
Windhile	-> name);				
	temp -> link = NULL;				
	C++ ;				
Maderia	vieturn temp;	I -			
	3				
	void executes () \$				
	8n + 1, n;				
	MODE temp;				
	prentf (" Enter number of Students:");				
	Scant ("/d", kn);				
	for (120;1 < 0;1 ++)				
	print+ ("Enter Student 1.d details: "+1)				
	temp: create node ();)			
	17 (tixt = = NULI) 5.				
MI DIE	frost = tempi				
	3				
	3				
	desplay st();				
	3	5-11011			
	vord display Su () {	W. The St.			
	NODE cur = first;				
	it (+622+ == MON) &				
	print+ (61 SIL is empty");				
	return;				
	out with				

Date:	Exp. Title	Page No.
Exp. No.		
THE R	3	
	printf (" Student Details : \n");	ALCOHOLD !
	while (and 1 = NOR) ?	Bry Late
DE LIE	prents (" . (.d)+ ./. 5 \+ 1. 5 \n", cur sud!	no, wes
	vsn, eur-sname);	Large
	cur = cur -> link;	granul 100
1 234	3	100,000
	prient of C" Number of Students is -/.d.	; c);
	3	706.2
	vold Poset front () &	and Wind
	NopE temp = createnade ();	42 18/16/3
	104 (first = = NULL) &	
	first = temp:	To Atria
	return;	3
	temp -> link = first;	
	terst = temp;	SHOW THE
	vord ensertend () &	stands to
	NODE	aloreo
L. H.	cur = frost, temp = create node ();	Theres
	while (we -> sent? = NULL) }	Alleg .
		Action Co.
		/REAL CO.
	aux -> sink = temp;	093
	3	
		J. Manis
	1° 4 (first == NULL) 8.	Carlo Carlo
	pointf (" su is empty");	
	outurn j	Haller
	3	

Date:	Exp. Title Page No.
Exp. No.	12.0
	- first = first -s lln K;
	display 11 ();
	2
100	vord delete end ?
TA CONTRACTOR	NODE cus = first;
	8) (588) == NUII)
	8) (+181+ == NULL)
	prenty ("SIL "> Empty");
	sieturn ;
	3
	of (frot -> len x == HULL)
TO WITH	\$
STREET	first = NULL;
	c;
	outurn;
	4
	while (our -> link > link != NULL) &
	ş.
	cur = cue > lent;
	3
K KILL	
	un sunk = NIVII;
	(:
AND BE	
1. 1. T. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	

NAME OF TAXABLE PARTY.	
Date:	Exp. Title
Exp. No.	
	display UC);
	3
	W Company
	Christian C. S. Charles C. C. Control of Con
	Comment of the second
	The state of the s
	The same same and the same and
	The state of the s

Date:	Exp. Title Page No.
Exp. No.	
9.	perdop va menu dreven program en cfor the
	CBST) of Integers.
0.0	ereate as BST of H Integers: 6,9,5,2,8,15,24,14,7 8,5,2.
b.	Traverse the BST in Incoder pre order & post order
C.	Search the BST for a given element (key) rand
	one port the appropriate message.
do	
	program.
1	# include < Stolio h>. # include < Stolio h>.
	stouct node
	\$ 1000 F
	Stouct node * left wild's
	Pnt data;
	Stoud node * suight child;
	3-1
	typedet struct node * tree pointers;
	tree pointer root = NUL ", 11 Initalize can empty tree
	tree pointer create No de (int value); tree pointer posert BST (tree pointer oroot, intralue);
	vord inorder (tree pointer year);
	mid preorder (tree porter root);
	void postorder (tree pointer sucot);
MI LONG	

jate:	Exp. Title	Page No.
xp. No.		
	roid search (tree pointer root, int ky);	
	Potro ain ()	
	§	
	Pot raland J = \$ 6,9,5, 2,8,15,24,14,7,10]	1.
	inti, ch, key, n=10; //n is size of the a	bove axe
	while (1)	0
	É	BET MILE
	prenty ("1. create BST In 2. Traverals In 30 Sea	ach\n 4.
	Exit In Enter your choice ? 1);	
	Scant (" 1/2 od 12, 8 ch),	
	Swoftch (ch).	
	\$	TEST OF
	caret:	- Sc 1351
	for Cico & Ykn ; 1++)	
	8	
100	proof = insert BST (noot, values [1]);	
	3	11).
	printy ("Binary search tree constructed.)	(n');
	break ;	77 1 1 M A
	(ase 2 4	
	prenty (" (h In order :"); roorder (root);	
	printf ("In pre order;");	
	precody (2007);	
	printy ("In post order:");	A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		- 777
	moth ("\net);	7 1111
	prents ("In"); break;	
		E LOUIS

Exp. No.	care 3:
/	
_	printf ("In Enter the Key to Search: "); Scant ("/od", & Key);
_	search (noot, key);
	case4:
	eocht (o);
_	2
	2
	gretus no;
	2
	tree pointer createrode (int value).
	5
	toce pointer temp = malloc (size of (struct node));
	temp -> data = value;
	temp - leftedata = NULL;
	temp-> viigh+data = NUU;
	ruturo temp;
	3
	tree poporter possent BST (tree pointer root, Pot value)
	3 (2004==NOM)
	if (200+=NULL)
	3
	else iz (value « 2000 +> data).
	\$ V
	vroot > left unide Preset BST (root -> left child, valu
	3
	else
	\\ \\ \

Exp. No.	to the state of th
	root - suight child = fresent BST (root-) oright child,
	value);
	3
	suturn roots
	3
	void inorder (tree pointer 2001)
	(i) (eroot!=Nou?
	E DE SHOWED BE
	Provder (900+ -> left child); 11 vigit left child.
	print & Colledi, root -) data); 12 vis 8 + root
	in order (root > oright child); 11 visit Right child
	3
	3
	void preorder (tree pointer root)
	,
	ing (200+ 1 = NULT)
	\$
	print ("/d", root->data);
	preorder (root -> left child);
THE REAL PROPERTY.	pre order (200+ -> réght(hild);
	2
	2
	vord post order (tree pointer most).
	\$
	if (2000 f = NUU).
	5

Date:	Exp. Title	Page No.
Exp. No.		rage No.
INP.	Doct - 1	
	post order (200+ > leftchild); post order (200+ > right child);	
	post order (oroot > oright child);	
	prentf ("-1-d", root -> data);	
	3	To a second
	void search (toexpointer 000+ int key)	
	9	
	tree pointer temp;	
	temp=root;	
	while (temp!=Null).	
	2/1	
	if (key == temp -> data) 11 . compare the nod	e data
	with key.	
	T 2018 (11 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	
	pointf ("key found? \n");	
	return'i	
	else ig (Key < temp->data):	
	temp = temp -> left child:	
	3	
	else	
	\$	TANK NAME OF TANK
	temp= temp -> oright child;	
	9	
	3.	
100 100 110		

Date:	Exp. Title Page No.
Exp. No.	10.
Exp. No.	Develop a program en c jor the followeng operation s en Graph (G) of cities as create a Graph of N efties using Adjancincy matrix. 6th printall the nodes reactable from a given Starting node in a digraph using DFS/BFS. method. Program: # enclude (Stdio.h)
	# define MAX 16. int graph EMAX JEMAXJ; int visited EMAXJ; int Owne (MAX J;
	Pht front = -1, snear = -19 11 Create a graph wring adjacency matrix values void Create Graph (Phth). Ent P, J-9
	printif ("Enter thead jacency matrix values" ("); por (ico; icn , i + +) print ("Enter now yod:", i+1); for (jzo jkn , j++)
	11 Enter 0 % eles edge not existed otherwise / Scanf (111/0d1) k graph [i][j] 3 3

Date .	Pa Pa	ge No.
Exp. No.		
	11 Recursive version of DFS roid DFS (Int Start , intn)	
	roid DFS (Port Street sints)	NA CASA
	}	
	Pat 1°;	
	prente [11./dir, Start);	
	reserted Estant J= 19 11 put 1 for starting vester	
	resetted Estart Jo 1; 11 put 1 for starting vertex that vesetted.	
_	tos (tzosien ; 9++)	
	\{	
	if (! visited [i] && graph [stort] [i] == 1)	
	9	MAIN
	DFS (1, n); 11 call DFS oneurs Evely to seach	next
	vertex.	
	3	
	2	
	9	
	11 BFS Implementation using queue	
	void BFS (Port start, Portn).	
	on 1 e ves lens v	
E COL	ent invertesci	
	profit [11./od", Start); vist ted Estart] = 1; // put starting vertex vr	51 - 0
	quere Etterear J = Start; 11 Inxert into queu	
	visited jiset verter	
	water Campt of a news)	0(,
TO THE REAL PROPERTY.	while (Front & creal)	
	vertex - a vere Effort + FD: 11 por the yester = 5	sted
	vertex = queue Cfoord + F); 11 pop the vertex x ?	STICO.

xp. No.	Page No.
	for (120; 1<0; 1++)
	• •
	ig (! visited (i) 22 graph Ivertes [][] == 1).
	80
	potnote (" - (.d", "))
	visite d [17=1;
	queue [++rear]=1;
	3
	3
	3
	3
	intmain()
	5
	Pat ch, 95
	int n, start;
	while ()
	2
	prints ("In). create a Graph in 2. DFS In 3. BFS In
	4. Exet in Enturyous chorce: \n");
	Scant (11-1.d", & ch);
	Suptch (ch)
	ş
	case 1º
	pointf ("Enter the number of cities:");
	1 & cont (""/d", ED);
	create Graph (n);
	break;
	A THE THE PARTY AND THE PARTY

nate:	Exp. Title Page No.
xp. No.	case 2:
	prentf (" In Enter the Starting node; "); Scanf (" /.d", & Start);
	prents ("In Nodes neachable from node"/.d using PFS:", start);
	pris (start, n);
	11 Reset visited array for BFS. 200 (120 y icn ; i++)
	£ 1
11116	visited [i] = 0;
	3
	break y
DE L	case 3 ?-
	point = real = -1; l'ereset que le jor BFS point (" nodes reachable from node « l. d
17.43	using BFS: ", Start);
	BRS (Startin);
	11 Reset visited array for BFS.
	for (izo; ikn; itt)
	\$
	viseted Lio = 0;
	3
	prin+f ("\n'2);
124.13	Cage 4:- exit(0);
	break;
	3
	9
	ruturnos
	3

Exp. No.	Page No.
-	Give a file of N employee necords with a let of
	1 (4-aight) which uniquely determine the
	en memory by a Hosels Table (47) of m memory locati
	as the set of memory addrew (2-digit)
	of locations 9.1 H7. Let the keys in K and addresses
	Develop a program on ethat was tach junction K->L as H(K)= K mod on (remarade method), and emplement
	hashing tegnine to map a given key k to the addre
	for space 2. Resolve the collision (i) any) using linea
	probing. */
	# include < stdiooh >
	# inculade < staliboh>
	# define MAX-Employees 5
	# define H7_SIZE10
	Stouct Employee.
	\$
	Pot Key;
	Char name [30];
	Stouct Employee Hash table
	Stouct Employee * employee [MAX-Employees];
	4;
	ent that (int key, intm)

Exp. No.	
	6
	outurn Key 7. m;
	vord insert & struct Employee Hash Table * ht, Stouct
	Employe * cmp, intm)
	the second of th
	90+ index = hash (temp -> key, m);
	while (ht -> employees [index]! = Null).
	fndex = (fndex + 1) % m;
	bt > email of the first of the
	ht -> employees [index] = emp;
TO BOOK I	vord display (Struct EmployeettachTable *ht, intm).
- Oranda	s
TO THE REAL PROPERTY.	80+ 11/2
	porntf ("Hough Table "\n"); ger ("20;" x m; "++)
	\$ D
	in (ht -semployees I'i I = Null).
	\$ 1
	pointf ("Index % de Key = % d, Name = % s \n";
	in ht stemployees [i] -> Key
	ht -> employees tiJ-> Name);
	3
-	else
	· Committee of the comm

print; ("Indox 7.d: Empty \n", i); 3 80troain () 8 80t is m. Struct Employee Harb Table ht; Ar (120; Yemax_Employees; i+t) 1 1 1 1 1 1 1 1 1 1 1 1 1	Date	Exp. Title	Page No.
3 Entmain () S Pat i, m; Struct Employee trach Table ht; gr (120; 12max - Employees; 1+t) ht. employee [1] = Nall; m = H7 - SIZF; Struct Employee (= \$1000, "Noor"]; Struct Employee (= \$1001, "rehman"]; Struct Employee (= \$1002, "Altu" 2; Struct Employee (= \$1003, "Shanawaz"]; Frosist (& ht, &e1, m); Posest (& ht, &e2, m); Fosest (& ht, &e3, m); Fosest (& ht, ra); Enterno; Firest (& ht, ra); Enterno; Firest (& ht, ra);	Esp. No.		
3 Entmain () S Pat i, m; Struct Employee trach Table ht; gr (120; 12max - Employees; 1+t) ht. employee [1] = Nall; m = H7 - SIZF; Struct Employee (= \$1000, "Noor"]; Struct Employee (= \$1001, "rehman"]; Struct Employee (= \$1002, "Altu" 2; Struct Employee (= \$1003, "Shanawaz"]; Frosist (& ht, &e1, m); Posest (& ht, &e2, m); Fosest (& ht, &e3, m); Fosest (& ht, ra); Enterno; Firest (& ht, ra); Enterno; Firest (& ht, ra);		Printf ("Index %d: Empty \n", ");	
Pot main () Spring the main () Spring the mologration table int; For (120; 1/2 max - Employers; 1++) The employer LID = Null; M = H7 - SI ZF; Struct Employer ca = \$ 1000, " Noos "3; Struct Employer ca = \$ 1001, " rehman"; Struct Employer ed = \$ 1002, " Alter" 2; Struct employer et = \$ 1003, " Shanawaz"; Forest (& ht, 4e1, m); Forest (& ht, 4e2, m); Forest (& ht, ke3, m); Forest (& ht, ra); Struct (& ht, ra); Porest (& ht, ra); Porest (& ht, ra);			
Entrain () \$ Pot i, m; Stouct Employee trach Table ht; For (izo; izmax_Employees; i+t) ht. employee LIJ=Null; m=H7-StZE; Stouct Employee & = \$ 1000, "Noor"}; Stouct Employee & = \$ 1001, "rehman"}; Stouct employee & = \$ 1002, "Altu" &; Stouct employee & = \$ 1003, "Shanawaz"}; Fosist (& ht, de1, m); insist (& ht, de2, m); insist (& ht, de3, m); fosist (& ht, de3, m); greturno; greturno;			
Should Employee Hach Table ht; 30x (120; 12max - Employees; i+t) ht. employee [1] = Null; m = H7 - SIZE; Struct Employee (2 = \$1000, "Noos"]; Struct Employee (3 = \$1001, "rehman"]; Struct Employee (3 = \$1002, "Altu"]; Struct Employee (3 = \$1003, "Shanawaz"]; Struct Employee (4 = \$1003, "Shanawaz"]; fresht (& ht, 4e1, m); fresht (& ht, 4e2, m); fresht (& ht, ke3, m); fresht (& ht, rg); greturno; greturno;		3	
Struct Employee Hach Table ht; for (120; Temax - Employees; i+t) ht. employee LID = Null; m = H7 - SIZF; Struct Employee (1 = \$1000; "Noos" 3; Struct Employee (2 = \$1001; "rehman" 3; Struct employee (3 = \$1002; "Altu" 4; Struct employee (4 = \$1003; "Shanawaz" 3; Frischt (2 ht, 4e1; m); Frischt (2 ht, 4e2; m); Frischt (2 ht, 2e3; m);		entmain ()	
Struct Employee Hach Table ht; for (120; Temax - Employees; i+t) ht. employee LID = Null; m = H7 - SIZF; Struct Employee (1 = \$1000; "Noos" 3; Struct Employee (2 = \$1001; "rehman" 3; Struct employee (3 = \$1002; "Altu" 4; Struct employee (4 = \$1003; "Shanawaz" 3; Frischt (2 ht, 4e1; m); Frischt (2 ht, 4e2; m); Frischt (2 ht, 2e3; m);		\$	
for (120; 12max - Employees; 1++) ht. employee LID = Null; m = H7 - SIZF; Struct Employee & = \$ 1000; "Noos "}; Struct Employee & = \$ 1001; "rehman"}; Struct Employee & = \$ 1002; "Altu" ?; Struct Employee & = \$ 1003; "Shanawaz"}; frisigt (& ht. del.m); frisigt (& ht. del.m); frisigt (& ht. le21m); frisigt (& ht. le31m);			
for (120; 12max - Employees; 1++) ht. employee LID = Null; m = H7 - SIZF; Struct Employee & = \$ 1000; "Noos "}; Struct Employee & = \$ 1001; "rehman"}; Struct Employee & = \$ 1002; "Altu" ?; Struct Employee & = \$ 1003; "Shanawaz"}; frisigt (& ht. del.m); frisigt (& ht. del.m); frisigt (& ht. le21m); frisigt (& ht. le31m);		Stouck Employee Hach Table ht;	
m = H7-SIZF; Struct Employee (1 = \$1000, "Noor"); Struct Employee (2 = \$1001, "rehman"); Struct employee (3 = \$1002, "Altu" 2; Struct employee et = \$1003, "Shanawaz"; **moist (2 ht, 4e1, m); **noist (2 ht, 4e2, m); **noist (2 ht, 2e3, m);		for (120; Yemax -Employees; i++)	
m = H7-SIZF; Struct Employee (1 = \$1000, "Noor"); Struct Employee (2 = \$1001, "rehman"); Struct employee (3 = \$1002, "Altu" 2; Struct employee et = \$1003, "Shanawaz"; **moist (2 ht, 4e1, m); **noist (2 ht, 4e2, m); **noist (2 ht, 2e3, m);		ht. employee II) = Null;	
Struct Employee & = \$ 1000, " Noos " }; Struct Employee & = \$ 1001, " rehman" }; Struct employee & = \$ 1002, " Altu" }; Struct employee et = \$ 1003, " Shanawaz" }; rosigt (& ht, de1, m); rosert (& ht, le2, m); rosert (& ht, le3, m); rosert (& ht, rg); returno; g	Marie Control	3	
Stouct Employee & = \$ 1001, " rehman"; Stouct employee & = \$ 1002, " Altu"; Stouct employee et = \$ 1003, " Shanawaz"; Prosist (& ht, 4e1, m); Prosist (& ht, 4e2, m); Prosist (& ht, &e3, m); Prosist (& ht, &e3, m); Prosist (& ht, rg); Prosist (& ht, rg); Prosist (& ht, rg);			
Stouct Employee & = \$ 1001, " rehman"; Stouct employee & = \$ 1002, " Altu"; Stouct employee et = \$ 1003, " Shanawaz"; Prosist (& ht, 4e1, m); Prosist (& ht, 4e2, m); Prosist (& ht, &e3, m); Prosist (& ht, &e3, m); Prosist (& ht, rg); Prosist (& ht, rg); Prosist (& ht, rg);		Struct Employee <1 = \$1000, "Noos "3;	
Struct employee et = § 1003, "Shanawaz"y; nosist (2 ht, 4e1, m); nosist (2 ht, 4e1, m); nosist (2 ht, 4e2, m); nosist (2 ht, 2e3, m); nosist (2 ht, 2e1, m); nosist (2 h		Stouct Employee (= \$ 1001, " rehman";	17.6
#nsigt (2 ht, 4e1, m); Prosect (2 ht, 4e2, m); Prosect (2 ht, 2e3, m); Prosect (2 ht, rg); Preturno; Y		Stouct employee e3 = \$ 1002, "Altu" 4;	
forset (&ht, Le3, m); rosest (&ht, Le3, m); rosest (&ht, rg); returno; 3	RUDL		
insert (&ht, &e3, m); insert (& ht, rg); geturno; g			
ensert (2 nt, vg); ocetaino; i			
greturno;			
3 /			
	1		
		(38)	
			THE PERSON
			30 20 30