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|-----|--|
| | Venhaltesh G D |
| | |
| 1.) | # include (stdio.h) |
| | # include <stdlib.h></stdlib.h> |
| | struct Node { |
| | int data; |
| | struct Mode* next; |
| | 3; Chas and the last last |
| | void push Cstruct Node* head ref, int new data); bood is Bresent Cstruct Node* head, int data); |
| | bool is Bresent (street Mode thead int data); |
| | |
| | Street Node* get Union (struct Node* head 1, struct Node* head 2) { |
| | Struct Node* result = NULL; |
| | street Node *11 = head, *12 = head?; |
| | while (Clin) = NOLL) & |
| | push (Liresult, It 1 - data); |
| | to = to rent;) |
| | 3 Culph a nymber to you |
| | 0 |
| | struct Node get Intersection (struct Node heads, struct Mode heads) { |
| | stand Node result = NULL; |
| | struct Node* 11 = head; |
| | cohile (L1 = NULL) { |
| | |
| | if CisBresent Chead2, 11-data) |
| | perso (& result, 1) Hata); |
| | st= t1 - next; |
| | 5 |

return resulting

11/1/ 2 Mark 1 month

· JIJM

" mently of higher

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| | 7.7 |
|) void push (struct Mode** head ref int new date struct Node struct Node = (struct Node | 4) (|
| struct Node* accordate new_node = (struct Node | + N-1-1) |
| Size (Suu | ct Node); |
| new node > data = new data; | |
| new node -> next = (*head ref); | how he had |
| (*head_ref) = new_node; | |
| been that for | |
| | • / |
| void printList (struct Node* node) { cohile (node!=NULL) { | Void |
| prints ("% d", no de > data); node = node > next; | 1 x nx / |
| node = node → next; | |
| The state of the s | nrel a same |
| <u>j</u> | |
| be left and the left of the le | |
| bool is Bresent (struct Node* head, int doita) { struct Node* t = head; | |
| ashile (t!= NULL) [| <u> </u> |
| if (t > data = = data) | \$ |
| return 1; | A Property of |
| $L = L \rightarrow next;$ | |
| 3 is M to Women to the William In | |
| return 0; | , 1 kg /1 |
| 3 (1) 41 (1) (1) | ta. p |
| The second of th | |
| int main () | |
| A a state of horself extends | 1 7 2 2 2 2 |
| struct Node * head 1 = NULLi | |
| Struct Node * head2 = NULL; | 1.76 |
| struct Mode* intersection = NUL; | |
| struct Node* union = NULL' | The state of the s |

| push (Shead1, 23); | |
|--|---------------------|
| neish (2 head 1°, 14); | * 1 |
| land (land 18) | ¥ |
| oush (head 1 31); | ist. |
| rush (Lheads, 9); | ett. |
| | |
| push (Sheada, 12); | |
| neigh (Cheap2, 23); | |
| rush (l head 2, 9); |) |
| auch (S. head2, 5); | (1) |
| push (Lhead2, 25); | |
| | 000 |
| intosection = get Intersection Chead 1, head | (25) j. Ali i i i i |
| union = GelUnion Cheads, head2)i | Tr. Marie B. |
| | |
| points ("In First List: \n"); | |
| paintList Chead 1); | |
| OCUL SILVER DE LA CONTRACTOR DE LA CONTR | 10111 Se 8 |
| paints ("In elacond list: In"); (1) | 11.12 |
| printList (head 2); | multiple of |
| The same of the sa | Carl H. Manney |
| pounts (1) Intersection !! 1); | mar Street |
| paint (1) Intersection !!"); | it with the |
| 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | man & S |
| points C'In Union: "Di | A CONTRACTOR |
| pointList (anion); (18) | Terrino A. A. |
| The transfer of the transfer of the | ne that in |
| return 0; | Municipal |
| | |
| 3 15 6 16 10 1 10 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 111 |
| 1/ Executed & tested on VS Gode (Who | into 20.8.1. |

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| | DATE. 1 |
| | |
| 2) i) Bre-Onder Traversal | (1) |
| -> , | |
| 1. Visik Root | The transfer of the state of th |
| 2. Traverse the left subtrue, i.e. as 3. Traverse right subtrue, i.e. as | rall prearder (left subtrue |
| 3. Transport Subtree in the | ill visorider Cought subtree |
| S TOUNDSE SUGILL SUISOLUE (ME SU | |
| 2 (1) | |
| (B) (F) 7 | |
| | The state of the s |
| 4 (H) I) 10 | 1 (h. 1.1) rentesta h. |
| 0 0 | The second of the second |
| |) |
| Flesher Recursive call | Output |
| 1. Visit Rootman I am Digneral | V) A A |
| 2. Recen left child of Root A | AB |
| 3. Recur left child of B | ABC |
| 9. Recur lest thild of C. | (Ilwa ABCD |
| 5. Recur right child Checause | ABCDE |
| left is NULL) | 1001/1 (1/1) 1 |
| | |
| | MARCOEF |
| Jugin Guld of t | ABCDEFG |
| 8 Recur lest shild of Fis ne | |
| and a G | ABCDEFGH |
| 9. Receive be right child of G | ABCDEFGHI |
| 10. Recur right child of I | ABCDEFGHIJ |
| (Because left is NOLL) | 0170) 1/1/2000 |
| 11. Recur right child of J | ABODEFGHIJK |
| Obecause left is NULL) | O geolia si |
| | 1 \ (7 - 1) |
| Sissed Final Acitant. ADC | DEECHTTN |
| Sissey: Final Output: ABC (PREORDER) | DEFGHIJK |
| | |

| ii) Inavoisal (· ii |
|--|
| |
| 1. Visit lest sub-tree, i.e call France (left-subtree) 2. Visit Root |
| 2 · Visit Root |
| 3. Travose right subtree, i.e call Inorder (right-subtree). |
| Receivisive Calls Quitput |
| Security Cans |
| 1) Receir on left subtree |
| Charase AA B-c-DD make the devotes. |
| 2) Visit Root (D - c) |
| 3) Recur on Deight subtree (C-E) |
| 4.) Visit Root (CC+B) |
| 5) Vist Root, since reight subtree DCEBA |
| & BIS NULL (B-A) MAKE AND A |
| 6) Recent beight subtree of A. MINDOEBAR |
| CA-SOF) O CA-CAD |
| 1) Receive to Hight subtree & () DCEBAFH. |
| then tream left subtree (F-Q-H) |
| 8) Visit Root JOH (H-G) (DCEBAFHG |
| a) Receive to right subtree (1) DCBBAFHGI |
| CACOLD LONG |
| 10) Record to right subtree DCEBAFHGIJ |
| $(I \rightarrow J^{\prime})$ |
| (1) Recur to right sublice I : DEEBAFHGITK |
| $CJ \rightarrow kD$ |
| |
| |
| |
| Final Output: DCEBAFHGIJK |
| (IMORDER) |

80 - 61 mg

| 2.) | (iii) Post Oxdor Travursal | |
|------|--|--|
| | 1. Travoise lest subtrice | ie call Postarolon (left-subtrice), ie call Postarolon (right-subtrice |
| | 2. Traverse right subfree | ie rall Postarolor Cright-subtree |
| | 3. Visit the swoot. | |
| | | |
| | Receiversion calls | Output |
| | | |
| | · Receive on left subtrec | D |
| | $(A \to b \to c \to D^0)$ | (2 (2) |
| | 2. Traverse right subtree | (D→E) DE |
| | 3. Visit Root (E->c) | DEC |
| | 4. Visit- Root (C-B) | DECB COMMENT |
| | 5 Traverse right subtrace & | -E-1C 11) OF C 0.11 |
| | xccur to left subtree (B- | PROPARA DECIDA |
| | 6 XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX | DESCRIPTION |
| | 6 Reave to right subtrue | DECBHK |
| | $(H \rightarrow J \rightarrow J \rightarrow K)$ | T V V C - 20 V T |
| | 7. Visit Root (K > J) | DECBHKJ |
| | 8. Vist Root (J-) | DECBHKJI |
| | 9. Visit-Root (I-)G) | DECBHKJIG |
| | e- Vist Root (G→F) | DECBHKJIGF |
| - !! | · Vist Root (F-A) | DECBHKJIGFA |
| | $1 - \{ \{C_i, \}, \{1, 1, 2, 3, \dots, 2n\} \}$ | on the sound constitution |
| | | |
| | tinal Output: DECI | 3HK JIGFA MON COL |
| | (POSTORDER) | |
| | | |
| | | |
| | | |
| - | | The state of the s |

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