~ Mobartesh Gattina 1BM19EE0 Aemoustrating binary Jane #include extalio.h7 # include citallib. h? #indude < string. h? struct node struct node & llink;
struct node & rlink; typedy struct node \* NODE; NODE getnode () x = (NODE) malloc (rize of (rituret mode)); 1 printf ("memory not availablein");
exit (6); of (x == NULL) return X; gold francode ( Node x) free (x);

NODE invest (int item, NODE nod) NODE temp, our, prev; das direction [10]; it i temp = gitmode(); temp > info = item; temp->llinde = NULL; temp -> Mink = NULL; il (neet ==NULL) neturn temp; fainty ("give the direction to invert \m"); searly (4.5", direction); freo = NULL, cu = root; for(i=0; i c staten (direction) && was (= 00 NVCL; i++) hrev = cur, of (direction [i]="1") in = cu > Und, our = au -> Mink; if (cur!=NULL || i!= rtalen (direction)) party (" inserti on not possible \m"); fremode (temp); retuen nood;

4 (cm == NULL) l if (direction [i-1] == '1') hero => Minh = temp; English Control else from > rlink = temp; \$ 1000 \$ 48 - 1000 ritum (rod); void produ (Note root) JUNEA - AND COME if ( noot != NULL) frieder (noot > slink); prooder (noot > slink); prooder (noot > slink); e Vywit natur ab lat english da void morder (NODE rot) if [most (=NULL) Listed March moder (not >llink); print["-/d In", noot > info); inorder (next-ordink); void fortorder (NODE root) if (noot !=NULL) hostorder (root-shirk); faint [ce/d/m", noot-sixte);

wid display (NODE root, inti) if (root != NULL) dialay (not > nlink, i+1), for(j=1; j <= 1; j++) faint (" "); leintf("-1.d/m", rod > info); display (root-shirt, i+1); void main () NODE noot = NUCL; int choice, i, item; 1 fruits ("1. insert In 2-preorder In 3. inorder In 4. portorder hs. dialogin"); fruits ("cutes the choice (n"); sauf (" - 1. d", & choice); switch (choice) 1: faintf ("enter the item \n"); scarf ("-/d"/stem); root = insist (tim, root); bush?

fruit (" of of (noot = = NULL) display ( faintf (" true is amfity la"); putt (" given tree is "); display (not, 1); feinth (" the preoder traversal is hill preorder (noot); of ( noot = = NULL) fainty ("tru is entry in"); faint f (" given tree is"); puilf ("the morder travalal is (""); diflay ( coot, 1); moder (noot) 5 of ( aget == NULL) fauth ("tou is cufty hi");

fruit (" given tree is"); display (noct, 1); paints (" the portorder transonal is \n"); portodos(noot); dis Lay (rod, 1) bredl; default: enit (0); expected out fuit -1. junet e proder 3-morder 4- portorder 5-deflay lety the choice enter the item 1. insert 1. Juoda 3. inordy 4. horlordy

5. display cutes the droice. outer the item give to direction to inset 1. innert 2- prooder 3. proods 4- Jostoda Well to think 5- display enter the choice enter the item halle John gion the direction to in next 1. invert 2. proorda 3. Justa 4. Lost order 5. distay enter the choice guin tou is the preorder traversal is

1. invert 2. produ 3. inoder 4. fortordes 5. diflay enter the choice given tree is It is order traver 1. invest 2- Jacober h- portodel 5. display ate the hoise gion true is