**Assignment No:-**

**Assignment Name:- Implementation of program for creating heap using INSERT.**

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#include <iostream.h>

#include <conio.h>

//INSERT\_MAX

class INSERT\_MAX

{

private:

int\*A,n;

public:

INSERT\_MAX(int size);

void READ();

void INSERT(int);

void CREATE\_HEAP();

void DISPLAY();

};

INSERT\_MAX :: INSERT\_MAX(int size)

{

n = size;

A= new int[n+1];

}

void INSERT\_MAX :: READ()

{

for(int i=1; i<=n; i++)

{

cin>>A[i];

}

}

void INSERT\_MAX :: INSERT(int node)

{

int j, i, item;

j = node; i= node/2; item = A[node];

while(i > 0 && A[i] < item)

{

A[j] = A[i];

j=i;

i=i/2;

}

A[j] = item;

}

void INSERT\_MAX :: CREATE\_HEAP()

{

for(int i= 2; i<=n; i++)

{

INSERT(i);

}

}

void INSERT\_MAX :: DISPLAY(){

for(int i=1; i<=n; i++)

{

cout<<A[i]<<" ";

}

}

void main()

{

clrscr();

int size;

cout<<"Enter the size of list: ";

cin>>size;

INSERT\_MAX heap(size);

heap.READ();

cout<<"\nYou Entered Elements are: ";

heap.DISPLAY();

heap.CREATE\_HEAP();

cout<<"\nElements after Creating MAX\_HEAP: ";

heap.DISPLAY();

getch();

}