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**ROLL NO: 01**

**SUBJECT: AOA**

**EXPERIMENT NO: 1**

To implement insertion sort and comparative analysis for large values of 'n'

#include<stdio.h>

#include<conio.h>

int main(){

int i,j,key,n;

int A[100];

clrscr();

printf("\*\*\*INSERTION SORT\*\*\*");

printf("\nEnter the size of array :");

scanf("%d",&n);

printf("\nEnter the elements: \n");

for(i=0;i<n;i++){

scanf("%d",&A[i]);

}

for(j=1;j<=n;j++){

key=A[j];

i=j-1;

while(i>0 && A[i]>key){

A[i+1]=A[i];

i=i-1;

}

A[i+1]=key;

}

printf("\nElements after sorting :");

for(i=0;i<n;i++){

printf("\n%d",A[i]);

}

return 0;

}

**OUTPUT:**

