THE UNIVERSITY OF DODOMA

COLLEGE OF INFORMATICS AND VIRTUAL EDUCATION

CP 213: DATA STRUCTURE AND ALGORITHM ANALYSIS

NAME: ANUARI IDDI ISSA

REG NO: T/UDOM/2020/00345

COURSE: BSc-SE

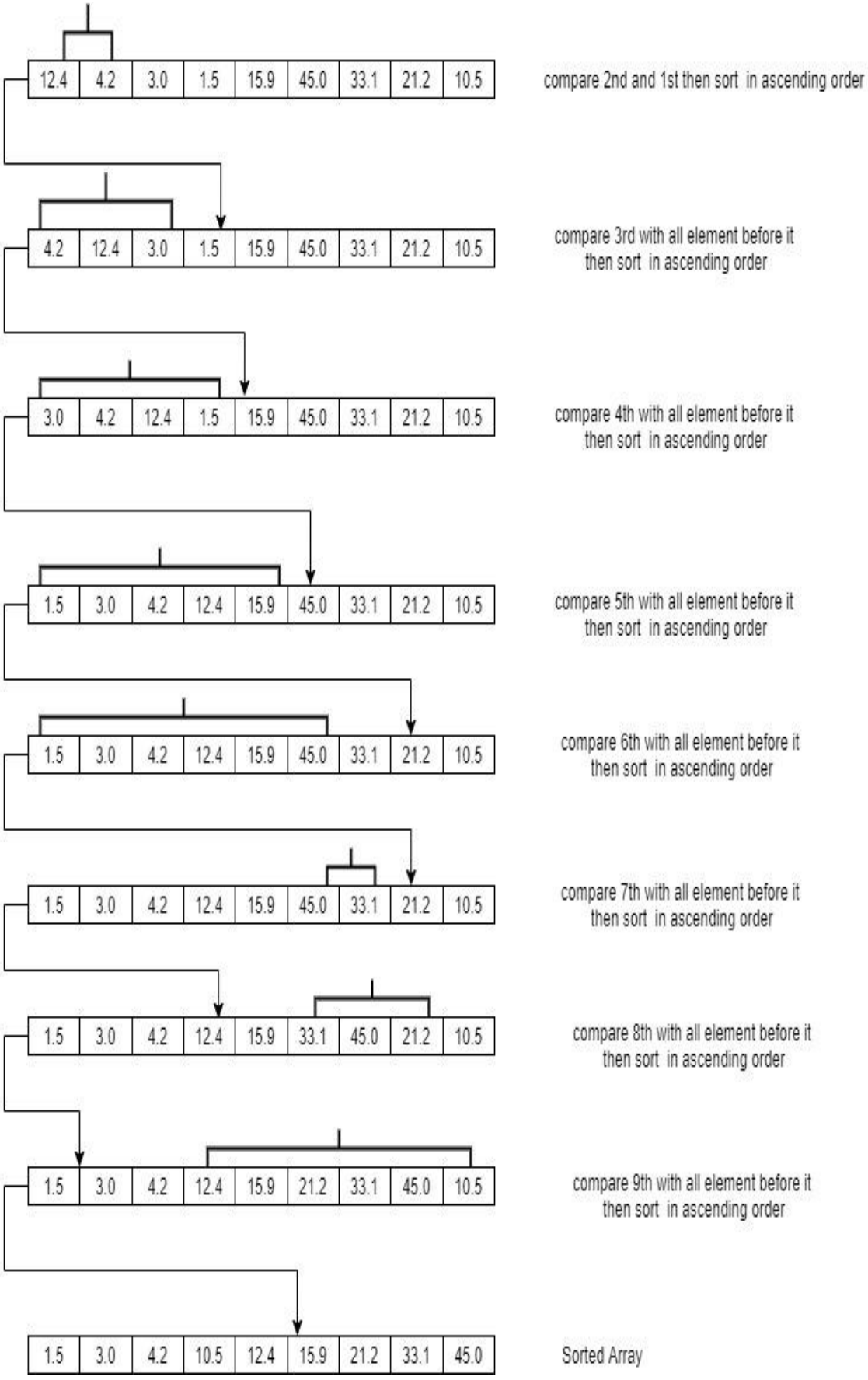
ASSIGNMENT

02:

```
#include<iostream>
using namespace std;
int main ()
{
   float myarray[9] = { 12.4,4.2,3.0,1.5,15.9,45.0,33.1,21.2,10.5};

   cout<<"\nInput list is \n";
   for(int i=0;i<9;i++)
   {
      cout <<myarray[i]<<"\t";
   }
   for(int k=1; k<9; k++)
   {
      float temp = myarray[k];
      int j= k-1;
      while(j>=0 && temp <= myarray[j])
      {
         myarray[j+1] = myarray[j];
         j = j-1;
      }
      myarray[j+1] = temp;
   }
   cout<<"\nSorted list is \n";
   for(int i=0;i<9;i++)
   {
      cout <<myarray[i]<<"\t";
   }
}
```

02


12.4 4.2 3.0 1.5 15.9 45.0 33.1 21.2 10.5
compare 2nd and 1st then sort in ascending order
4.2 12.4 3.0 1.5 15.9 45.0 33.1 21.2 10.5
compare 3rd with all element before it then sort in ascending order
3.0 4.2 12.4 1.5 15.9 45.0 33.1 21.2 10.5
compare 4th with all element before it then sort in ascending order
1.5 3.0 4.2 12.4 15.9 45.0 33.1 21.2 10.5
compare 5th with all element before it then sort in ascending order
1.5 3.0 4.2 12.4 15.9 45.0 33.1 21.2 10.5
compare 6th with all element before it then sort in ascending order
1.5 3.0 4.2 12.4 15.9 45.0 33.1 21.2 10.5
compare 7th with all element before it then sort in ascending order
1.5 3.0 4.2 12.4 15.9 33.1 45.0 21.2 10.5
compare 8th with all element before it then sort in ascending order
1.5 3.0 4.2 12.4 15.9 21.2 33.1 45.0 10.5
compare 9th with all element before it then sort in ascending order
1.5 3.0 4.2 10.5 12.4 15.9 21.2 33.1 45.0
Sorted Array