

10-07-2024

FIBONACCI

BUBBLE SORT:-

P = Pass

C = COMPARE

T = TEMPORARY

→ main ( )

{

int a[20], i, n;

printf ("Enter n");

scanf ("%d", &n);

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

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

bubble\_sort (a, n);

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

printf ("%d", a[i]);

}

ALREADY SORTED



void bubble\_sort (int a[], int n)

{ int p, c, t, ex;

for (p = 0; p < n-1; p++)

{ for (ex = 0, c = 0; c < n-p-1; c++)

{ if (a[c] > a[c+1])

{ t = a[c];

a[c] = a[c+1];

a[c+1] = t;

ex = 1;

}

}

if (ex == 0)

return;

}

}

=



# SELECTION SORT:-

5 3 4 2 1  
↑

1 3 4 2 5  
↑

1 2 4 3 5  
↑

1 2 3 4 5  
↑

1 2 3 4 5

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

```
{ small = i;
```

```
for (j = i + 1; j < n; j++)
```

```
{ if (a[j] < a[small])
```

```
{ small = j;
```

```
}
```

```
}
```

→ main()

```
{
```

```
int a[20], i, n;
```

```
printf("Enter n: ");
```

```
scanf("%d", &n);
```

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

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

```
selection-sort(a, n);
```

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

```
printf("%d", a[i]);
```

```
}
```

```
void selection-sort(int a[], int n)
```

```
{
```

```
int i, j, small, t;
```

```
for (i = 0; i < n - 1; i++)
```



```
{ for ( small = i, j = i+1; j < n; j++ )
```

```
{ if ( a[j] < a[small] )  
  small = j;
```

```
}
```

```
t = a[i]; a[i] = a[small];
```

```
a[small] = t;
```

```
}
```

```
}
```