A-	Poblob
artered or expenses and the common	Perform analysis on the time comple
The bottom of the late of the	of insertion sort algorithm in
Ams -	455
	11 115 Should
TO ST THE PROPERTY OF THE PROP	in ascending order.
	Program :
Professional Programme Commission	for (int i=1; i < n; i++)
	3
	a = arr [i]
	for (j=i-1; j>=0; j).
	3
	if (a Larr Ej7)
	3 1
	1000 Eg 24
	a [j+1] = a [j]
- 2	$a I_j + iJ = a I_j $ $a I_j J = a$ $Dipanshu$ 2
	3
	else
AND A	
	break;
	3 3
	Fist is \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
	Charles I. M.
	Loop 1 -
	a = 6
	Loop 2 - (6 L2)
	V False
	Real
110	D ROW
	0

```
Joh n= 2
       if (9 2 out[i])
             break
                          Cost
             Loop 2
  Loop 1
            j=n-2
  i = n-1
   Time complexity => O(n-1)
                  Dipanshu gong
6-2 Bubble sort -
                       It hours (n-1) times
   Joh (i=0; i 2 n-1; i++)
     for (j=0; j < n-1; j++)
       if (a [j] 7 a [j+17)
           b = a [j]
           atja= atj+D;
           a [j+1]= b; 585
```

So: total time complexity is
0 ((n-1/2) \$ 0 (n^2).
Boick soft +
Vaid swop Cint +a, in++b
3
Int x = 4q;
* 0 = * b;
* b = x; 3
Dibanchy John
Dipanshu Jarg
intelled Till and
int post [int R[]; inta, intb)
Int pro = R [a];
Interiza;
Int y 2 b;
de
E.
do 2 i++;3 while (RTiJL= pro);
do & j, 3 while (RCj] >= pso);
11 (iti) and (e e = i2 . 0 e = i)
(16j) swap (RRCi); 2 RZji);
Void and (: (a=a :
good sont (int RIZI inta, into)
is a
1 (046)

DATE b= part (R, a,b); 907+ (R, A, 1) Soft (R, j+1, b); Dipanshu garg Merge sort + Void Merge Cint RED, int a, int mid, intb) In+ 1x= 1; y=mid+1; Z=a; int BILDAJ. while [x = mid & e y L= b) if (R(x) L.R(y)) B[2++]= R[x++]; else B[2++] = R[y++) for C; x = mid; x++ B [2++]= R [X; for (;) 2 = b; y++) BTZ++J= RTX); for (x=a; x L=b; x++) BZX = RCX;

PAGE	NO.	Mark Control	- "
DATE		and the same	Type The

the same and	Yold Sort Cint R IJ; int w
	2
	in+ p, q, d, mid, q;
	for (P=2; P L=n; P=P*2)
	3
	for L i=0; i+p-1 = n; i=i+p)
	ر ح
	4j = ij
	J = i + P - b
	mid= (q+h)/2;
	Merge (R, Q, mid, s);
	2 3
	11 (P/2 / 12)
	Merge (R, 0, P/2-1, n);
	3
and the second second	So, It's time complexity is of O(nlogn) &
	O(nlogn) }
	lang.
	i bans Mu o
	Dipansm gold Dipansm gold Tallold Tallold
	= 1912012