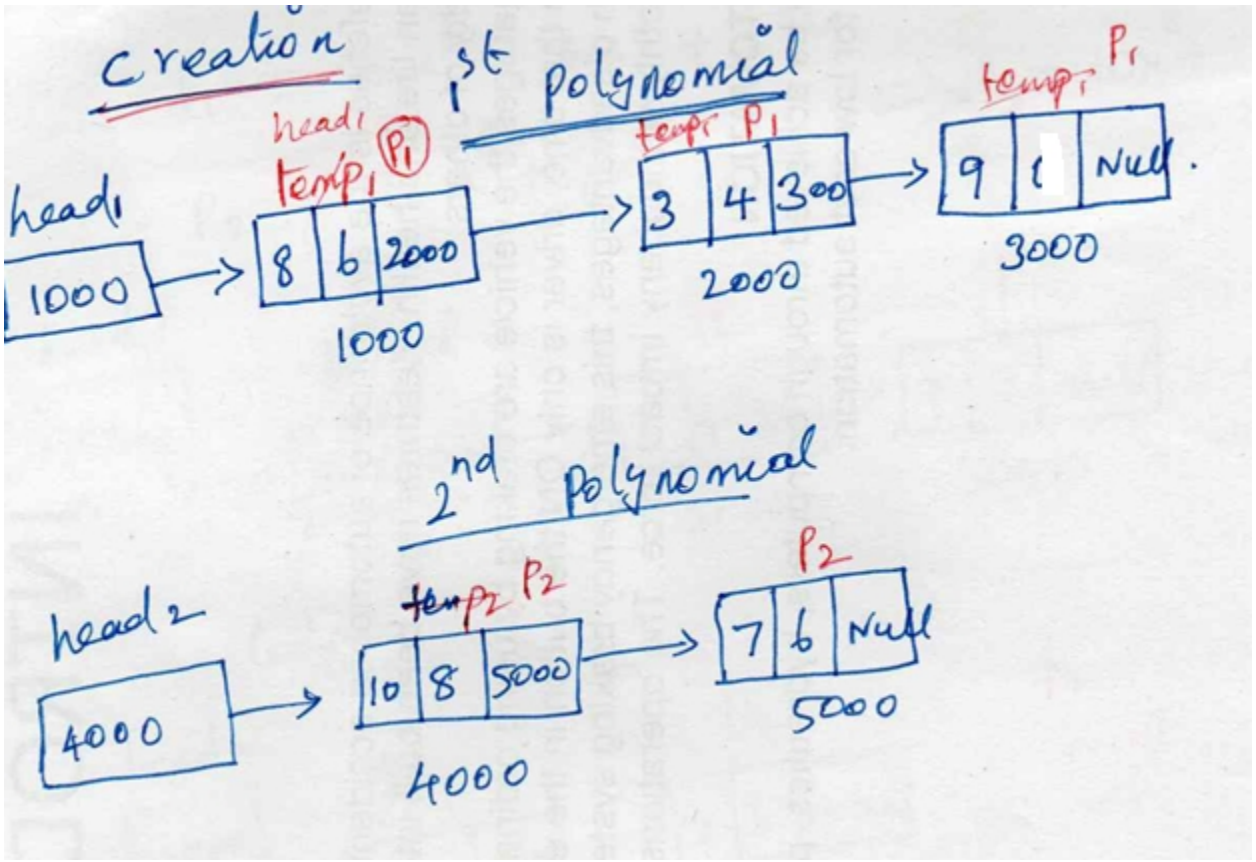
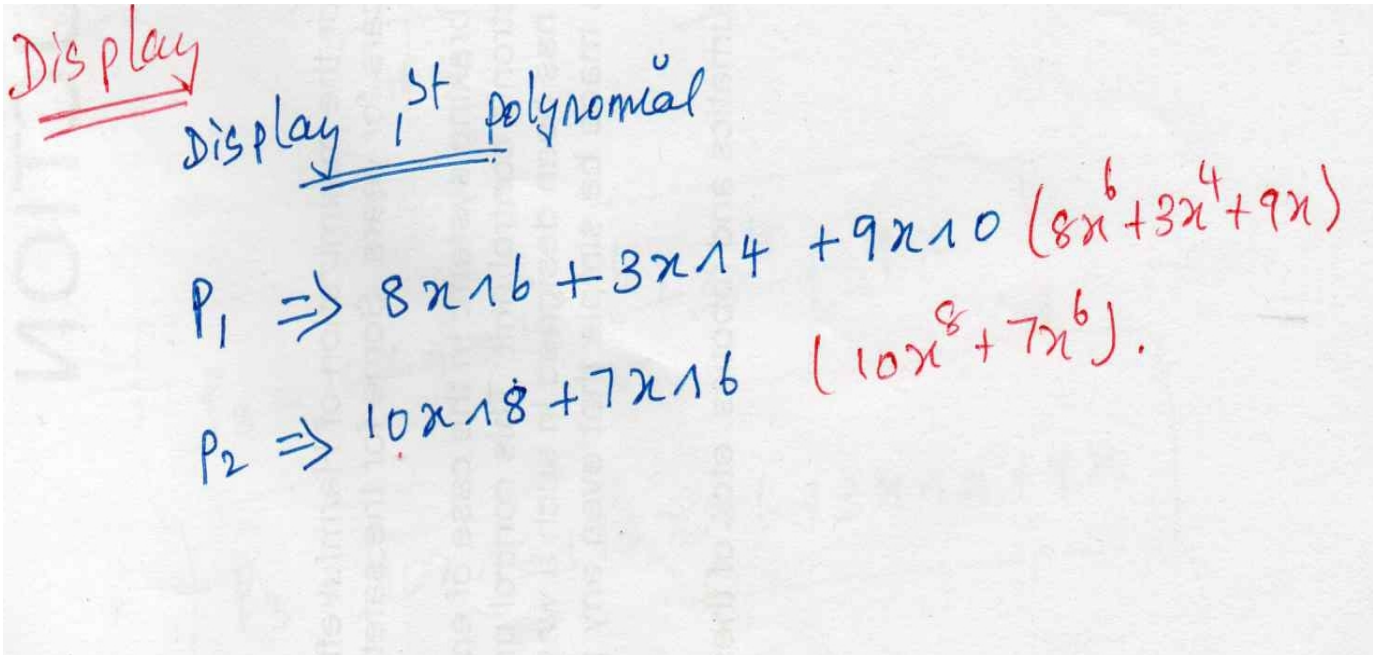
Creation of node

```
void create(struct link *node)
{
 char ch;
 do
 {
  printf(“enter 1st polynomial”);
  temp1==(struct link*)malloc(sizeof(struct link));
  printf("\n enter coeff:");
  scanf("%d",&temp1->coeff);
  printf("\n enter exp:");
  scanf("%d",&temp1->exp);
  temp1->next=NULL;
 if(head1== null)
{
head1=temp1;
p1=temp1;
}
else
{
p1->next=temp1;
p1=temp1;
}
printf("\n continue(y/n):");
 scanf(“%c”,&ch);
 while(ch=='y' || ch=='Y');
}
```


Creation
1st Polynomial
head1
1000
temp1
P1
8
6
2000
1000
temp1
P1
3
4
300
2000
temp1
P1
9
1
Null
3000
2nd Polynomial
head2
4000
temp2
P2
10
8
5000
4000
P2
7
6
Null
5000

Display

```
void show(struct link *node)
{
p1=head1;
printf(display 1st polynomial”);
 while(p1!=NULL)
 {
 printf("%dx^%d",p1->coeff,p1->exp);
  p1=p1->next;
  if(p1!=NULL)
 printf("+");
 }
}
```



Addition of two polynomial

```
void polyadd()
{
p1=head1;
p2=head2;

   while(p1!=null && p2!=null)
    {
   if(p1->exp==p2->exp)
     {
     printf(%dx^%d",p1->coeff-p2->coeff,p1->exp);
p1=p1->next;
p2=p2->next;
}
else if(p1->exp > p2->exp)
{
p1=p1->next;
}
else
{
printf(%d x^ %d", p2->coeff,p2->exp);
p2=p2->next
}
if(p1!=null  || p2!null)
printf("+");
}
while(p1!=null  )
{
printf((%d x^ %d", p1->coeff,p1->exp);
p1=p1->next;
if(p1!=null  )
printf("+");
```

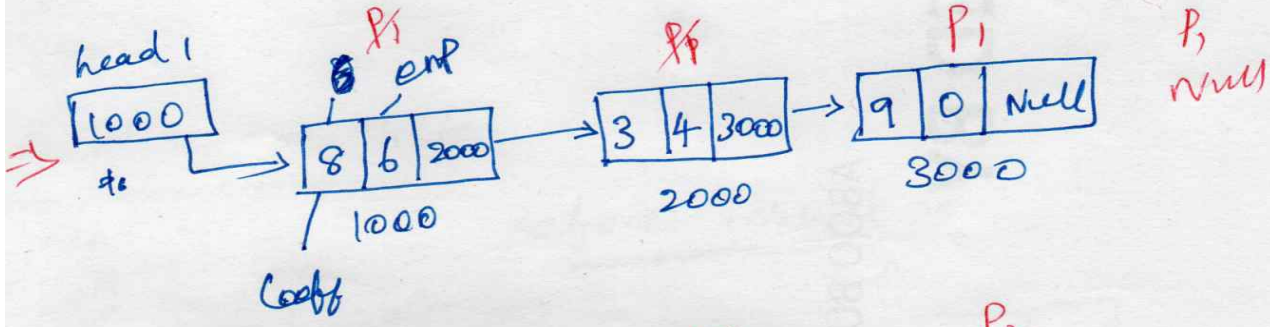
```
}
while(p2!=null  )
{
printf((%d x^ %d”, p2->coeff,p2->exp);
p2=p2->next;
if(p2!=null  )
printf(“+”);
}
}
```

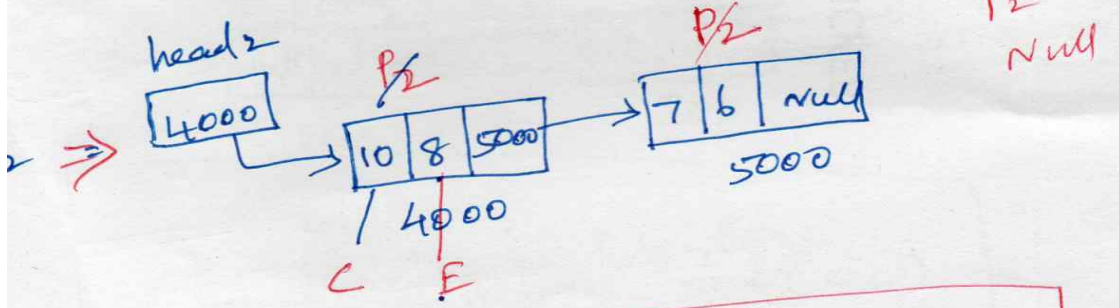
Addition two polynomial

$P_1 = 8x^6 + 3x^4 + 9x$

$P_2 = 10x^8 + 8x^6$

$\Rightarrow P_3 = 10x^8 + 15x^6 + 3x^4 + 9x$





$P_3 = 10x^8 + 15x^6 + 3x^4 + 9x$

$P_3 = 10x^8 + 15x^6 + 3x^4 + 9x$

Addition of two polynomial

$P_1 = 8x^6 + 3x^4 + 9x$

$P_2 = 10x^8 + 7x^6$

$\Rightarrow P_3 = 10x^8 + 15x^6 + 3x^4 + 9x$