```
#include<stdio.h>
 #include<stdlib.h>
#include<string.h>
struct node
{
 int id;
 char name[20];
 char br[20];
 char asp[20];
 struct node *llink,*rlink;
};

typedef struct node *NODE;

NODE getnode()
  { NODE temp;
  temp=(NODE)malloc(sizeof(struct node));
  printf("enter employee details");
  printf("\nenter id,name,branch,areaofSpecialisation:\n");
  scanf("%d",&temp->id);
  scanf("%s",temp->name);
  scanf("%s",temp->br);
  scanf("%s",temp->asp);
  temp->llink=temp->rlink=NULL;
  return temp;
 }

NODE insertrear(NODE first)
{
  NODE newnode,cur;
  newnode=getnode();
  if(first==NULL)
    return newnode;
  cur=first;
  while(cur->rlink!=NULL)
      cur=cur->rlink;
  cur->rlink=newnode;
  newnode->llink=cur;
  return first;
}

NODE deletefront(NODE first)
{
  NODE temp;
  if(first==NULL)
    {
       printf("\nlist is empty");
        return;
     }
  if(first->rlink==NULL)
    {
       printf("\nemployee details deleted ssn:%d\n",first->id);
       free(first);
       return NULL;
     }
  temp=first;
  first=first->rlink;
  first->llink=NULL;
  printf("\nemp details ssn:%d\n",temp->id);
  free(temp);
  return first;
}

void display(NODE first)
```

```
{
 NODE cur;
 int c=0;
 if(first==NULL)
   {
     printf("\nlist is empty\n");
      return;
   }
  cur=first;
  while(cur!=NULL)
   {
     printf("\n%d\n%s\n%s\n%s\n",cur->id,cur->name,cur->br,cur->asp);
     cur=cur->rlink;
      c++;
   }
 printf("\nno. of Professors = %d\n",c);
}


void main()
{
NODE first; int ch; first=NULL;
while(1)
{
  printf("\n1.Create Queue of Professor data ");
  printf("\n2.insert rear\t 3.delete front\t");
  printf("\n4.display\t 5.exit");
  printf("\nenter choice:");
   scanf("%d",&ch);
  switch(ch)
   {
    case 1 : printf("\n Enter the number of Professor");
             scanf("%d",&n);
             for(i=0;i<n;i++)
                first=insertrear(first);
              break;
    case 2 : first=insertrear(first);break;
    case 3 : first=deletefront(first); break;
    case 4 : display(first); break;
    case 5 : exit(0);
   }
}
```