

Kshitij.R
18M18CS048.

classmate

```
struct node  
{ int data;  
  struct node* link;  
};  
struct node* XOR(struct node* a, struct node* b)  
{ return (struct node*) ((uint16_t)a ^ (uint16_t)b);  
}
```

```
void insert_end(int data)  
{ struct node* newnode = new(struct node);  
  newnode->data = data;  
  newnode->link = NULL;  
  if (head == NULL)  
  { head = newnode();  
  }  
}
```

else

```
{ struct node* current = head;  
  struct node* prev = NULL;  
  struct node* x;  
  while (current->link != prev)  
  { x = current;  
    current = XOR(current->link, prev);  
    prev = x;  
  }
```

```
  current->link = XOR(current->link, newnode);  
  newnode->link = current;  
}
```

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```
void insert-beg(int data)
{
    struct node * newnode = new(struct node);
    newnode->data = data;
    newnode->link = NULL;
    if (head == NULL)
    { head = newnode;
      }
    else
    { newnode->link = head;
      head->link = XOR(head->link, newnode);
      head = newnode;
    }
}
```

Kshirij