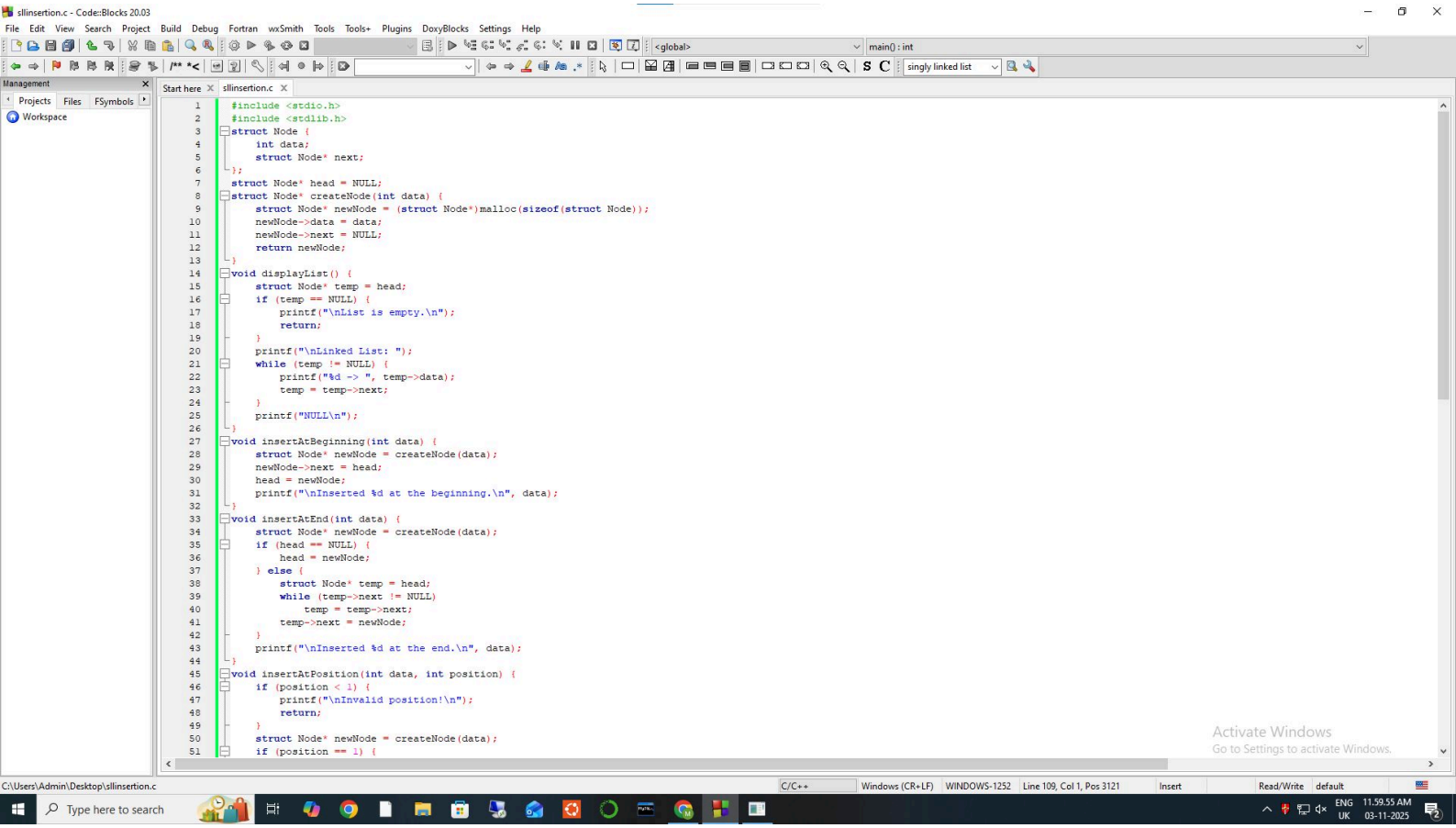
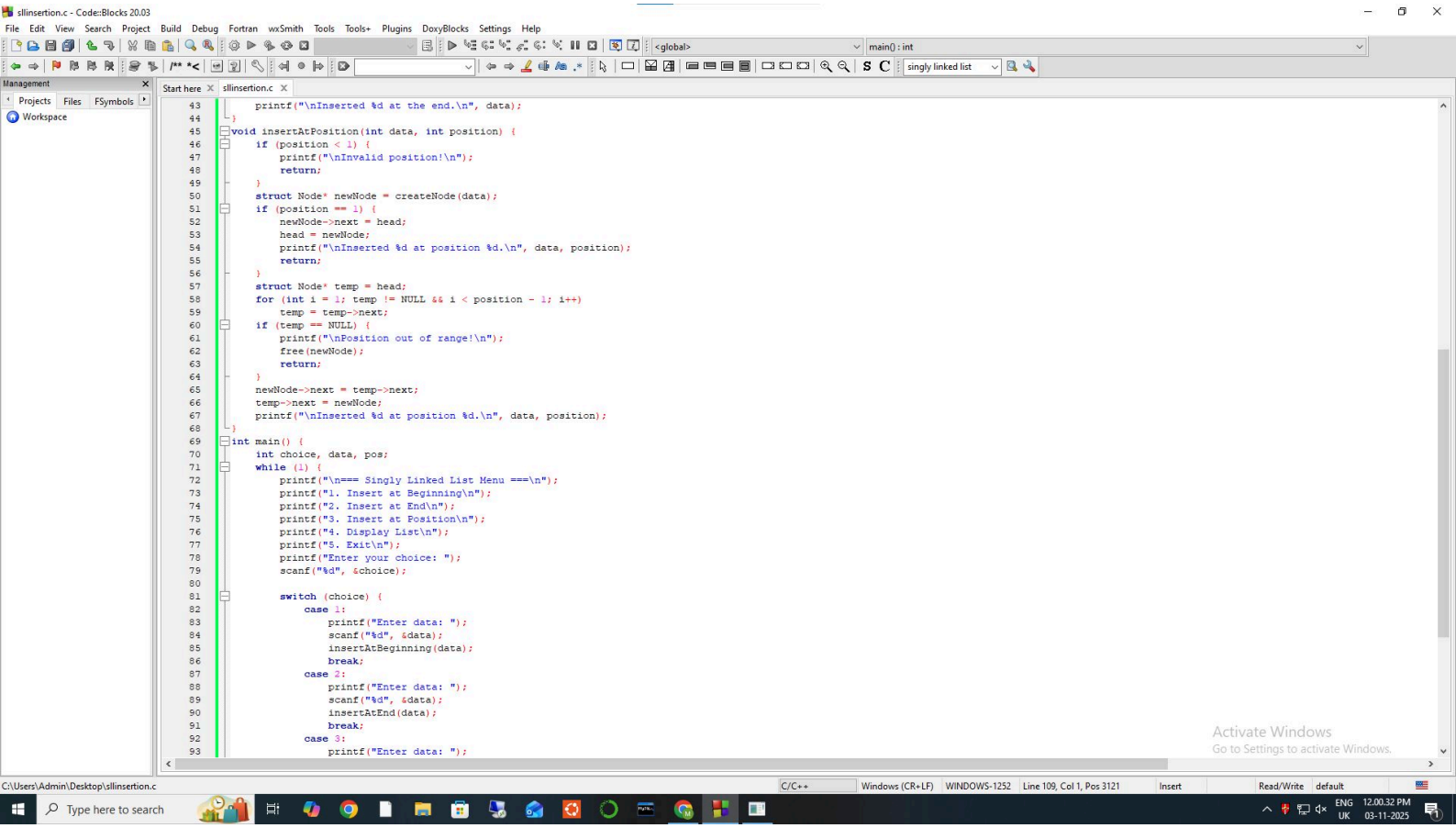
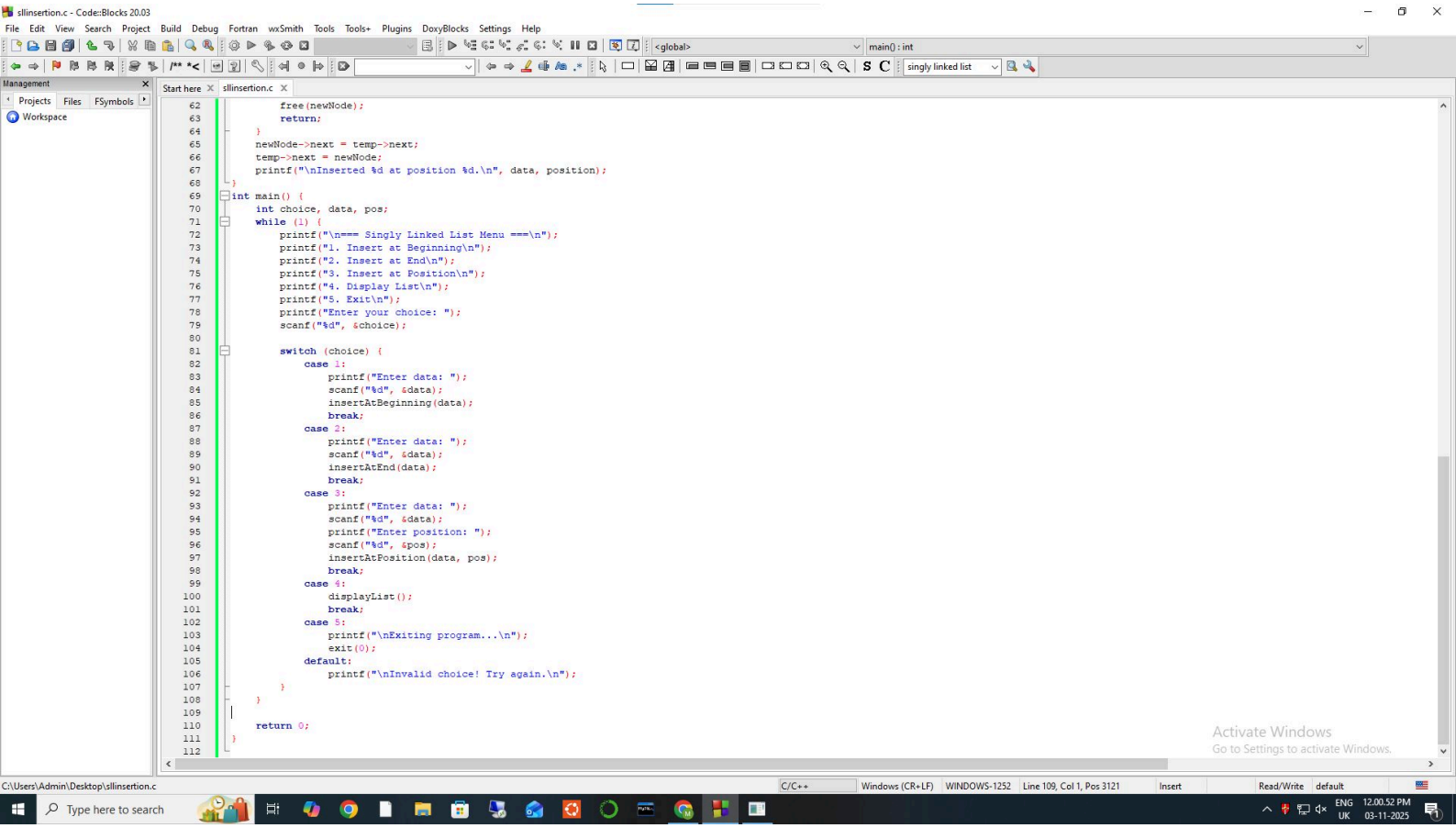
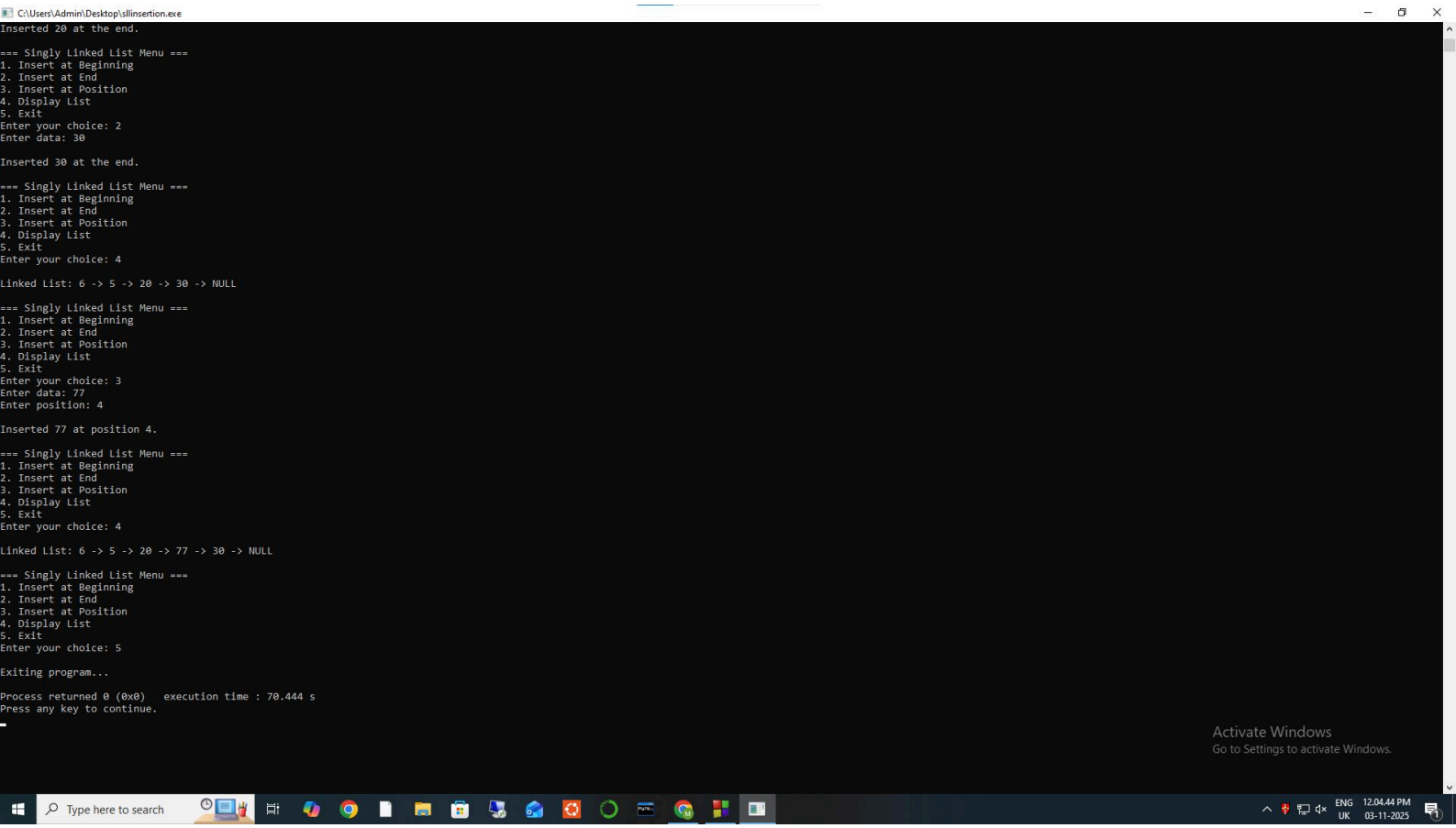

sllinsertion.c - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
Management
Projects Files FSymbols
Workspace
Start here
sllinsertion.c
#include <stdio.h>
#include <stdlib.h>
struct Node {
int data;
struct Node* next;
};
struct Node* head = NULL;
struct Node* createNode(int data) {
struct Node* newNode = (struct Node*)malloc(sizeof(struct Node));
newNode->data = data;
newNode->next = NULL;
return newNode;
}
void displayList() {
struct Node* temp = head;
if (temp == NULL) {
printf("\nList is empty.\n");
return;
}
printf("\nLinked List: ");
while (temp != NULL) {
printf("%d -> ", temp->data);
temp = temp->next;
}
printf("NULL\n");
}
void insertAtBeginning(int data) {
struct Node* newNode = createNode(data);
newNode->next = head;
head = newNode;
printf("\nInserted %d at the beginning.\n", data);
}
void insertAtEnd(int data) {
struct Node* newNode = createNode(data);
if (head == NULL) {
head = newNode;
} else {
struct Node* temp = head;
while (temp->next != NULL)
temp = temp->next;
temp->next = newNode;
}
printf("\nInserted %d at the end.\n", data);
}
void insertAtPosition(int data, int position) {
if (position < 1) {
printf("\nInvalid position!\n");
return;
}
struct Node* newNode = createNode(data);
if (position == 1) {
Activate Windows
Go to Settings to activate Windows.
C:\Users\Admin\Desktop\sllinsertion.c
C/C++
Windows (CR+LF)
WINDOWS-1252
Line 109, Col 1, Pos 3121
Insert
Read/Write
default
Type here to search
ENG
UK
11.59.55 AM
03-11-2025


sllinsertion.c - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
Management
Projects Files FSymbols
Workspace
Start here
sllinsertion.c
printf("\nInserted %d at the end.\n", data);
}
void insertAtPosition(int data, int position) {
if (position < 1) {
printf("\nInvalid position!\n");
return;
}
struct Node* newNode = createNode(data);
if (position == 1) {
newNode->next = head;
head = newNode;
printf("\nInserted %d at position %d.\n", data, position);
return;
}
struct Node* temp = head;
for (int i = 1; temp != NULL && i < position - 1; i++)
temp = temp->next;
if (temp == NULL) {
printf("\nPosition out of range!\n");
free(newNode);
return;
}
newNode->next = temp->next;
temp->next = newNode;
printf("\nInserted %d at position %d.\n", data, position);
}
int main() {
int choice, data, pos;
while (1) {
printf("\n=== Singly Linked List Menu ===\n");
printf("1. Insert at Beginning\n");
printf("2. Insert at End\n");
printf("3. Insert at Position\n");
printf("4. Display List\n");
printf("5. Exit\n");
printf("Enter your choice: ");
scanf("%d", &choice);
switch (choice) {
case 1:
printf("Enter data: ");
scanf("%d", &data);
insertAtBeginning(data);
break;
case 2:
printf("Enter data: ");
scanf("%d", &data);
insertAtEnd(data);
break;
case 3:
printf("Enter data: ");
Activate Windows
Go to Settings to activate Windows.
C:\Users\Admin\Desktop\sllinsertion.c
C/C++
Windows (CR+LF)
WINDOWS-1252
Line 109, Col 1, Pos 3121
Insert
Read/Write
default
Type here to search
ENG
UK
12.00.32 PM
03-11-2025


sllinsertion.c - Code::Blocks 20.03
File Edit View Search Project Build Debug Fortran wxSmith Tools Tools+ Plugins DoxyBlocks Settings Help
Management
Projects Files FSymbols
Workspace
Start here
sllinsertion.c
free(newNode);
return;
}
newNode->next = temp->next;
temp->next = newNode;
printf("\nInserted %d at position %d.\n", data, position);
}
int main() {
int choice, data, pos;
while (1) {
printf("\n=== Singly Linked List Menu ===\n");
printf("1. Insert at Beginning\n");
printf("2. Insert at End\n");
printf("3. Insert at Position\n");
printf("4. Display List\n");
printf("5. Exit\n");
printf("Enter your choice: ");
scanf("%d", &choice);
switch (choice) {
case 1:
printf("Enter data: ");
scanf("%d", &data);
insertAtBeginning(data);
break;
case 2:
printf("Enter data: ");
scanf("%d", &data);
insertAtEnd(data);
break;
case 3:
printf("Enter data: ");
scanf("%d", &data);
printf("Enter position: ");
scanf("%d", &pos);
insertAtPosition(data, pos);
break;
case 4:
displayList();
break;
case 5:
printf("\nExiting program...\n");
exit(0);
default:
printf("\nInvalid choice! Try again.\n");
}
}
return 0;
}
Activate Windows
Go to Settings to activate Windows.
C:\Users\Admin\Desktop\sllinsertion.c
C/C++
Windows (CR+LF)
WINDOWS-1252
Line 109, Col 1, Pos 3121
Insert
Read/Write
default
Type here to search
ENG
UK
12.00.52 PM
03-11-2025

C:\Users\Admin\Desktop\sllinsertion.exe

```
=== Singly Linked List Menu ===
1. Insert at Beginning
2. Insert at End
3. Insert at Position
4. Display List
5. Exit
Enter your choice: 1
Enter data: 5

Inserted 5 at the beginning.

=== Singly Linked List Menu ===
1. Insert at Beginning
2. Insert at End
3. Insert at Position
4. Display List
5. Exit
Enter your choice: 1
Enter data: 6

Inserted 6 at the beginning.

=== Singly Linked List Menu ===
1. Insert at Beginning
2. Insert at End
3. Insert at Position
4. Display List
5. Exit
Enter your choice: 4

Linked List: 6 -> 5 -> NULL

=== Singly Linked List Menu ===
1. Insert at Beginning
2. Insert at End
3. Insert at Position
4. Display List
5. Exit
Enter your choice: 2
Enter data: 20

Inserted 20 at the end.

=== Singly Linked List Menu ===
1. Insert at Beginning
2. Insert at End
3. Insert at Position
4. Display List
5. Exit
Enter your choice: 2
Enter data: 30

Inserted 30 at the end.

=== Singly Linked List Menu ===
1. Insert at Beginning
2. Insert at End
3. Insert at Position
4. Display List
5. Exit
Enter your choice: 4
```


C:\Users\Admin\Desktop\sllinsertion.exe
Inserted 20 at the end.
=== Singly Linked List Menu ===
1. Insert at Beginning
2. Insert at End
3. Insert at Position
4. Display List
5. Exit
Enter your choice: 2
Enter data: 30
Inserted 30 at the end.
=== Singly Linked List Menu ===
1. Insert at Beginning
2. Insert at End
3. Insert at Position
4. Display List
5. Exit
Enter your choice: 4
Linked List: 6 -> 5 -> 20 -> 30 -> NULL
=== Singly Linked List Menu ===
1. Insert at Beginning
2. Insert at End
3. Insert at Position
4. Display List
5. Exit
Enter your choice: 3
Enter data: 77
Enter position: 4
Inserted 77 at position 4.
=== Singly Linked List Menu ===
1. Insert at Beginning
2. Insert at End
3. Insert at Position
4. Display List
5. Exit
Enter your choice: 4
Linked List: 6 -> 5 -> 20 -> 77 -> 30 -> NULL
=== Singly Linked List Menu ===
1. Insert at Beginning
2. Insert at End
3. Insert at Position
4. Display List
5. Exit
Enter your choice: 5
Exiting program...
Process returned 0 (0x0) execution time : 70.444 s
Press any key to continue.
Activate Windows
Go to Settings to activate Windows.
Type here to search
ENG
UK
12.04.44 PM
03-11-2025