

## Experiment-10 (Dynamic Memory Allocation)

Q) WAP to Create a Simple linked list in C using pointer and structure

⇒ #include <stdio.h>  
#include <stdlib.h>

```
Struct Node {
    int data;
    Struct Node * next;
};
```

```
int main () {
    Struct Node * head = (Struct Node *) malloc (Size of (Struct
    Node));
    Struct Node * Second = (Struct Node *) malloc (Size of (Struct
    Node));
    Struct Node * third = (Struct Node *) malloc (Size of (Struct
    Node));
```

```
head → data = 10;
Second → data = 20;
third → data = 30;
```

```
head → next = Second;
Second → next = third;
third → next = Null;
```

struct Node \* temp = head;

```
printf ("Linked List: ");
while (temp != Null) {
    printf ("%d → ", temp → data );
    temp = temp → next;
}
```

{

```
printf ("Null\n");
return 0;
```

{

rajatsingh

Welcome C #include <stdio.h> Untitled-1 C C PROGRAMMING PROJECT.c CHAT

```
1 #include <stdio.h>
2 #include <stdlib.h>
3
4 struct Node {
5     int data;
6     struct Node * next;
7 };
8
9 int main() {
10     struct Node * head = (struct Node *)malloc(sizeof(struct Node));
11     struct Node * second = (struct Node *)malloc(sizeof(struct Node));
12     struct Node * third = (struct Node *)malloc(sizeof(struct Node));
13
14     head->data = 10;
15     second->data = 20;
16     third->data = 30;
17
18     head->next = second;
19     second->next = third;
20     third->next = NULL;
21
22     struct Node * temp = head;
23     printf("Linked list : ");
24     while (temp != NULL) {
25         printf("%d -> ", temp->data);
26         temp = temp->next;
27     }
28     printf("Null\n");
29
30     return 0;
31 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
cd "/Users/rajatsingh/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/Users/rajatsingh/tempCodeRunnerFile" && rm /Users/rajatsingh/tempCodeRunnerFile
● rajatsingh@Rajats-MacBook-Air ~ % cd "/Users/rajatsingh/" && gcc tempCodeRunnerFile.c -o tempCodeRunnerFile && "/Users/rajatsingh/tempCodeRunnerFile" && rm /Users/rajatsingh/tempCodeRunnerFile
Linked list : 10 -> 20 -> 30 -> Null
○ rajatsingh@Rajats-MacBook-Air ~ %
```

Add Context... C #include <stdio.h> + Add context (#), extensions (@), comments, Agent Agent Auto

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