

2) WAP to insert item in middle of the linked list.

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

```
struct Node {
    int data;
    struct Node * next;
```

```
};
```

```
void insert_middle(struct Node * head, int position, int value) {
    struct Node * newNode = (struct Node *) malloc(sizeof(struct Node));
```

```
    newNode->data = value;
```

```
    struct Node * temp = head;
```

```
    for (int i = 1; i < position; i++) {
        temp = temp->next;
```

```
    }
```

```
    if (temp == NULL) {
```

```
        printf("Position out of range!\n");
        return;
```

```
    }
```

```
int main() {
```

```
    struct Node * head = (struct Node *) malloc(sizeof(struct Node));
```

```
    struct Node * second = (struct Node *) malloc(sizeof(struct Node));
```

```
    struct Node * third = (struct Node *) malloc(sizeof(struct Node));
```

Remarks:

Teacher's Signature _____

head \rightarrow data = 10;
Second \rightarrow data = 20;
third \rightarrow data = 30;

head \rightarrow next = Second;
Second \rightarrow next = third;
third \rightarrow next = NULL;
insert-middle(head, 2, 25);
struct Node * temp = head;
printf("Updated linked list:");
while (temp != NULL) {
 printf("%d \rightarrow ", temp \rightarrow data);
 temp = temp \rightarrow next;
}

printf("NULL\n");
return 0;
}

