

15/2/24

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Date:

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Lect Code - 3

```
struct ListNode * splitListToParts(struct ListNode *  
head, int k, int * returnSize){  
    int length = 0;  
    struct ListNode * ptr = head;  
    int partSize = length / k;  
    int extraNodes = length % k;
```

```
    while (ptr != NULL){  
        length++;  
        ptr = ptr->next;  
    }
```

```
    struct ListNode ** result = (struct ListNode**)   
        malloc (k * sizeof (struct ListNode *));
```

```
    for (int i = 0 ; i < k ; i++)  
    {
```

```
        result[i] = head;
```

```
        int currentPart = partSize +  
            (extraNodes -- > 0 ? 1 : 0);
```

```
        for (int j = 0 ; j < currentPart - 1 ; j++) {
```

```
            if (head != NULL) {
```

```
                head = head->next;
```

```
            }
```

```
        }
```

```
    if (head != NULL) {
```

```
        struct ListNode * temp = head;
```

```
        head = head->next;
```

```
        temp->next = NULL;
```

```
    }
```

```
}  
*return Size = k;  
return result;  
}
```

Input -

head = 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

k = 3

Output -

[1, 2, 3, 4], [5, 6, 7], [8, 9, 10]

