

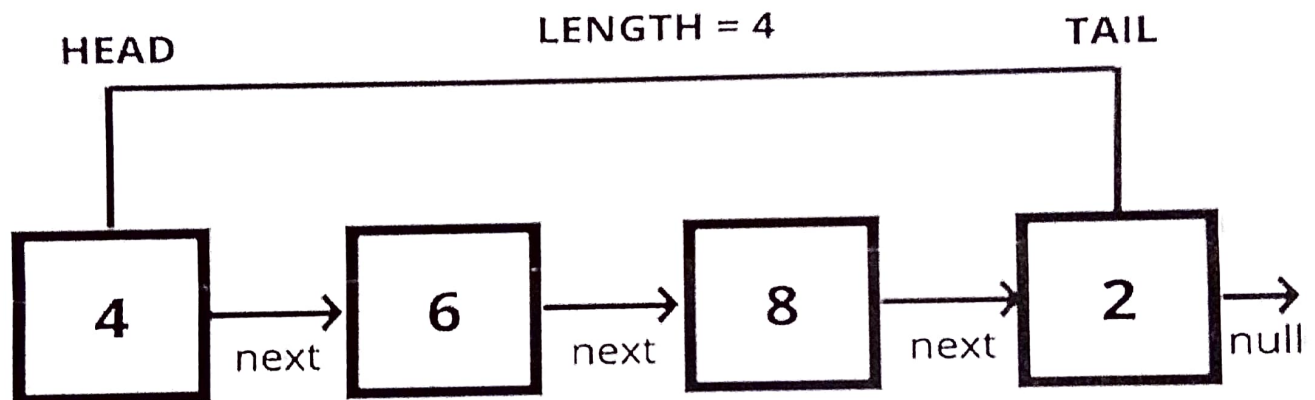
Department of Software Engineering
Faculty of Science & Information Technology
Lab Final, Spring 2024
Course Code: SE132, Course Title: Data Structures
Level: 2 Term: 2 Section: III
Instructor: RKN

1. Suppose you have an array of

"Tom"	"Peter"	"John"	"Clark"	"Harry"	"Simu"
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- Write a code for replacing "Clark" in this array with "Muller".
- "Simu" was left out of the array group, leaving a space in the array, Now you want to write a code that will move the empty space in the first of that array.

2.



Write a program that will create a linkedlist as shown in the picture above.

3.

1	2	3	4	5	6	7	8	9	10
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- Write a program to find 3 in this array using binary search.

4. Complete the following Code

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

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

```
struct node {  
    int item;  
    struct node* left;  
    struct node* right;  
};
```

```
void preorderTraversal() {  
  
}
```

```
struct node* createNode(int data) {  
    struct node* newNode = (struct node*)malloc(sizeof(struct node));  
    newNode->item = data;  
    newNode->left = NULL;  
    newNode->right = NULL;  
    return newNode;  
}
```

```
struct node* insertLeft() {  
  
}  
struct node* insertRight() {  
  
}
```

```
int main() {  
    struct node* root = createNode(90);  
    insertLeft(root, 35);  
    insertRight(root, 15);  
    insertLeft(root->left, 500);  
    preorderTraversal(root);  
  
    return 0;  
}
```