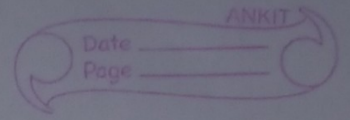


Assignment- 3

MCQS:-



Assignment - 3

MCQs :-

Ans → 1) (i) ofstream

Ans → 2) (ii) ifstream

Ans → 3) (iii) fstream

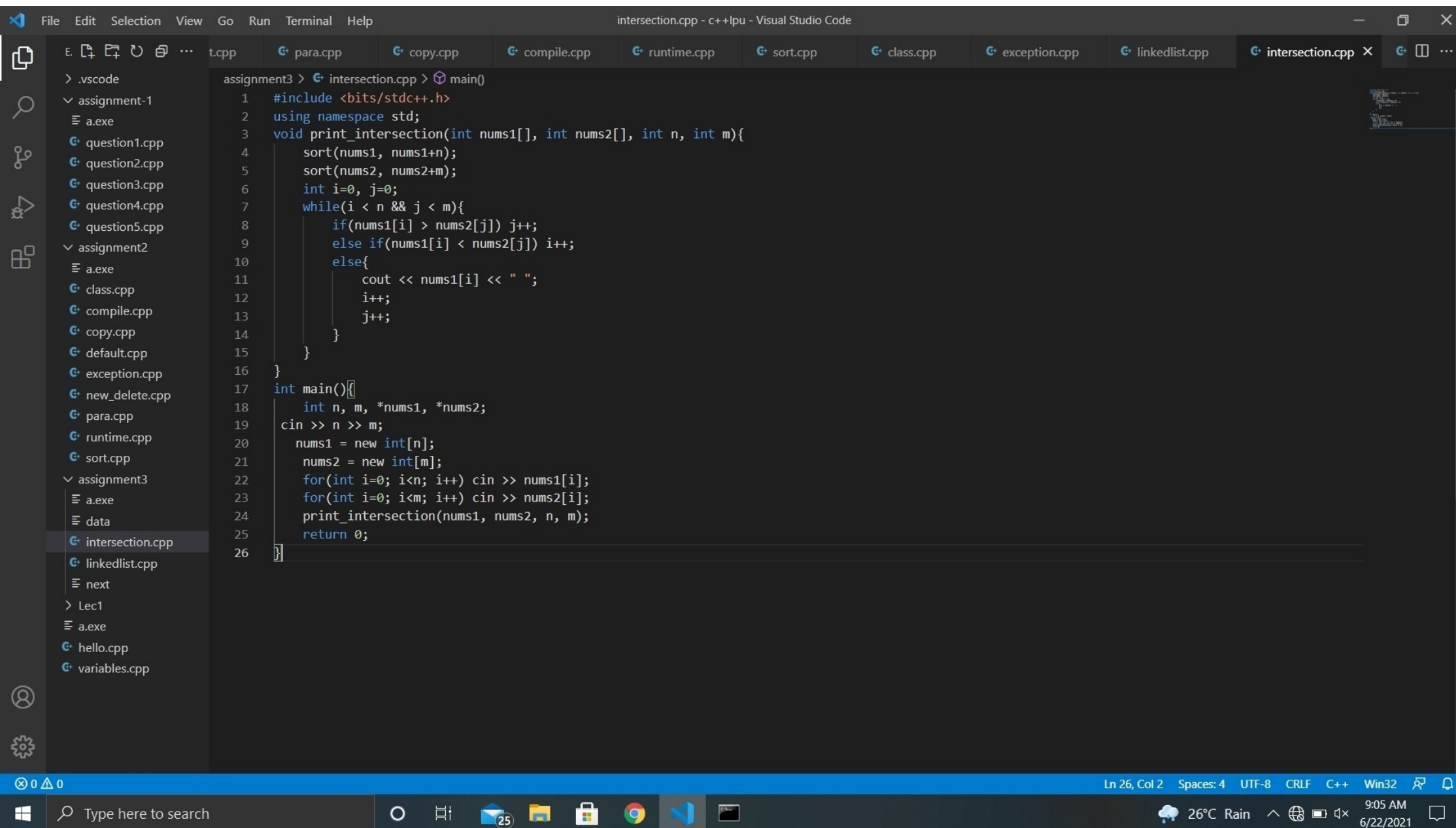
Ans → 4) (iv) ios::binary

Ans → 5) (ii) If the file is opened for output operations and it already existed, its previous content is deleted and replaced by the new one.

Ans → 6) (ii) myfile.open("example.bin", ios::out);

Ans → 7) (iv) myfile.close();

Q1) Intersection of array:-



The image shows a Visual Studio Code editor window with a C++ file named `intersection.cpp` open. The file is located in the `assignment3` folder. The code implements a function `print_intersection` that takes two arrays, `nums1` and `nums2`, and their sizes `n` and `m`. It sorts both arrays and then uses a two-pointer technique to find the intersection elements, printing them. The `main` function reads input for `n`, `m`, and the two arrays, and calls `print_intersection`.

```
1  #include <bits/stdc++.h>
2  using namespace std;
3  void print_intersection(int nums1[], int nums2[], int n, int m){
4      sort(nums1, nums1+n);
5      sort(nums2, nums2+m);
6      int i=0, j=0;
7      while(i < n && j < m){
8          if(nums1[i] > nums2[j]) j++;
9          else if(nums1[i] < nums2[j]) i++;
10         else{
11             cout << nums1[i] << " ";
12             i++;
13             j++;
14         }
15     }
16 }
17 int main(){
18     int n, m, *nums1, *nums2;
19     cin >> n >> m;
20     nums1 = new int[n];
21     nums2 = new int[m];
22     for(int i=0; i<n; i++) cin >> nums1[i];
23     for(int i=0; i<m; i++) cin >> nums2[i];
24     print_intersection(nums1, nums2, n, m);
25     return 0;
26 }
```

Output:-

Command Prompt

Microsoft Windows [Version 10.0.18363.1621]
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C:\Users\hp>cd C:\Users\hp\Desktop\c++lpu\assignment3

C:\Users\hp\Desktop\c++lpu\assignment3>g++ intersection.cpp

C:\Users\hp\Desktop\c++lpu\assignment3>a

3 5

4 9 5

9 4 9 8 4

4 9

C:\Users\hp\Desktop\c++lpu\assignment3>

Q2) To reverse the linkedlist:-

The screenshot shows the Visual Studio Code editor with a C++ file named `linkedlist.cpp` open. The file is part of a project named `assignment3`. The code defines a `Node` class with a `data` member and a `next` pointer. It includes functions for creating a node, appending a node, printing the list, and reversing the list. The `reverse_list` function is currently being edited, with the first line `Node* curr = head, *prev = NULL, *next = NULL;` visible.

```
1 #include <bits/stdc++.h>
2 using namespace std;
3 class Node{
4     public:
5     int data;
6     Node* next;
7 };
8 Node* head = NULL;
9 Node* create_node(){
10     Node* new_node = new Node();
11     new_node -> data = 0;
12     new_node -> next = NULL;
13     return new_node;
14 }
15 void append_node(int value){
16     Node* new_node = create_node();
17     new_node -> data = value;
18     if(!head){
19         head = new_node;
20         return;
21     }
22     Node* temp = head;
23     while(temp -> next != NULL) temp = temp -> next;
24     temp -> next = new_node;
25     return;
26 }
27 void print_list(){
28     if(!head) return;
29     Node* temp = head;
30     while(temp){
31         cout << temp -> data << " ";
32         temp = temp -> next;
33     }
34     cout << endl;
35     return;
36 }
37 void reverse_list(){
38     Node* curr = head, *prev = NULL, *next = NULL;
```

The status bar at the bottom indicates the current position is Line 35, Column 12, with 4 spaces, UTF-8 encoding, CRLF line endings, and C++ language. The system tray shows the date and time as 9:07 AM on 6/22/2021, along with weather information (26°C Rain).

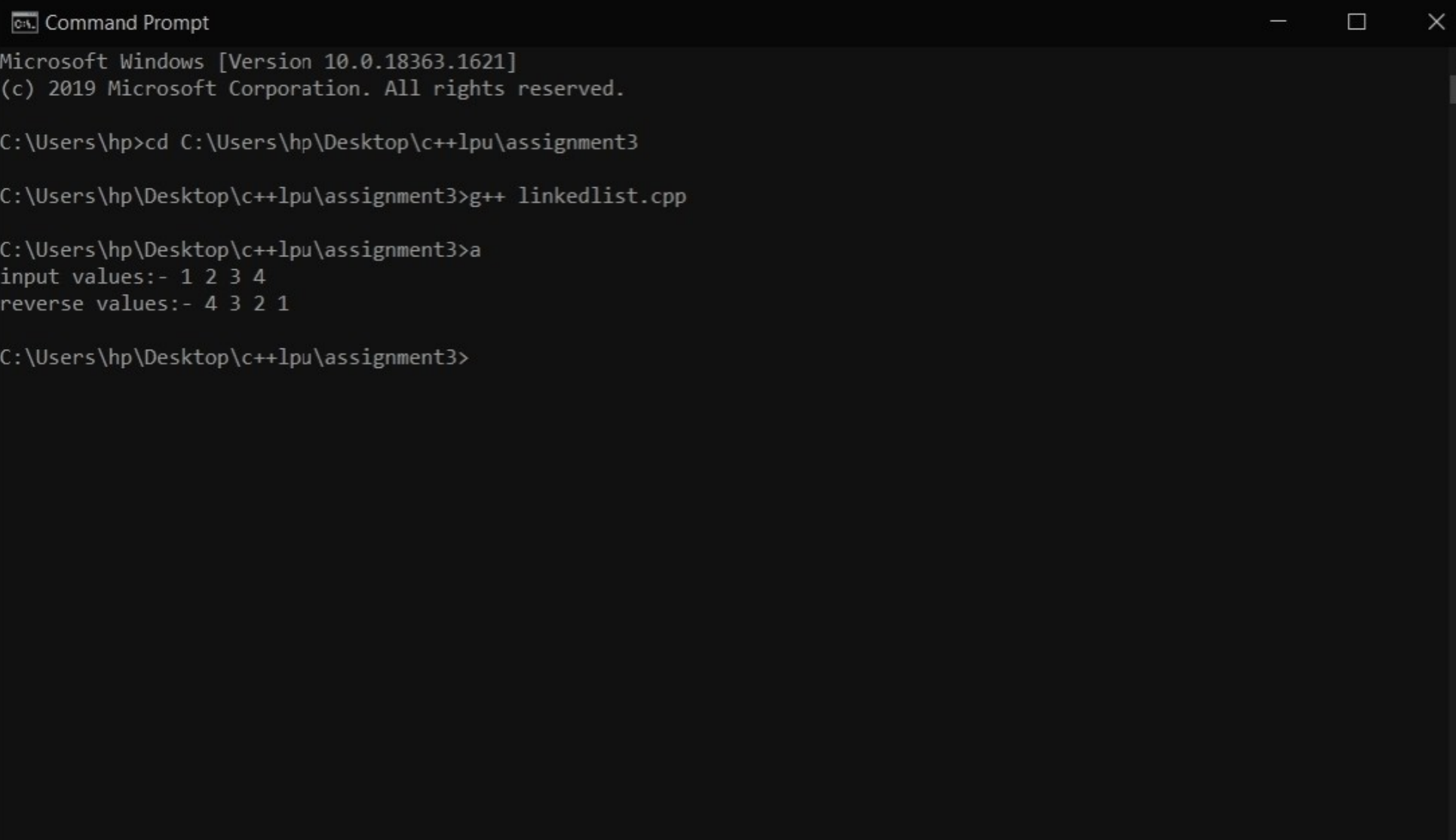
File Edit Selection View Go Run Terminal Help linkedlist.cpp - c++lpu - Visual Studio Code

assignment3 > linkedlist.cpp > print_list()

```
36 }
37 void reverse_list(){
38     Node* curr = head, *prev = NULL, *next = NULL;
39     while(curr){
40         next = curr -> next;
41         curr -> next = prev;
42         prev = curr;
43         curr = next;
44     }
45     head = prev;
46     return;
47 }
48 int main(){
49     cout<<"input values:- " ;
50     append_node(1);
51     append_node(2);
52     append_node(3);
53     append_node(4);
54     print_list();
55     cout<<"reverse values:- ";
56     reverse_list();
57     print_list();
58 }
59
60
```

Ln 35, Col 12 Spaces: 4 UTF-8 CRLF C++ Win32 9:07 AM 6/22/2021

Output:-



```
Command Prompt
Microsoft Windows [Version 10.0.18363.1621]
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C:\Users\hp>cd C:\Users\hp\Desktop\c++lpu\assignment3

C:\Users\hp\Desktop\c++lpu\assignment3>g++ linkedlist.cpp

C:\Users\hp\Desktop\c++lpu\assignment3>a
input values:- 1 2 3 4
reverse values:- 4 3 2 1

C:\Users\hp\Desktop\c++lpu\assignment3>
```

THANK YOU