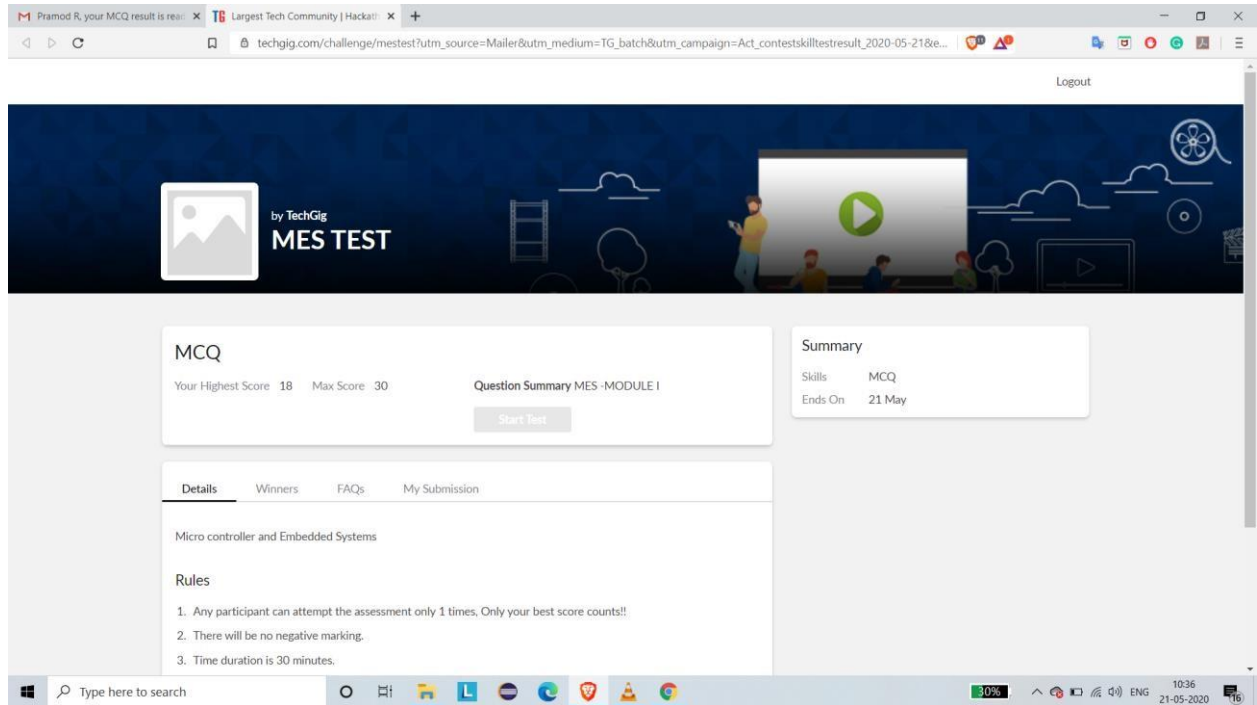


DAILY ONLINE ACTIVITIES SUMMARY

Date:	21/05/2020	Name:	Pramod R
Sem & Sec	4 th sem B section	USN:	4AL18CS059
Online Test Summary			
Subject	MICROCONTROLLER AND EMBEDDED SYSTEMS		
Max. Marks	30	Score	18
Certification Course Summary			
Course	Blockchain Basics		
Certificate Provider	Coursera	Duration	4 weeks
Coding Challenges			
Problem Statement: Write a C Program to Reverse a Linked List (SLL) in groups of given size.			
Status: Completed			
Uploaded the report in Github		YES	
If yes Repository name		https://github.com/alvas-education-foundation/Pramod_R	
Uploaded the report in slack		YES	

Online Test Details: (Attach the snapshot and briefly write the report for the same)



MICROCONTROLLER AND EMBEDDED SYSTEMS Internals was conducted. A total of 30 questions were there in which all the 30 of them were Multiple Choice Questions.

The above snapshot is the result sheet which was mailed to us by the Techgig team.

Certification Course Details: (Attach the snapshot and briefly write the report for the same)

courseera Explore

What do you want to learn?

Blockchain Basics > Week 1 > Blockchain Structure

Blockchain

Bitcoin & Blockchain

Blockchain Structure

- Video: Blockchain Structure 5 min
- Reading: (OPTIONAL) Resources: Blockchain Structure 12 min
- Practice Quiz: Self-Check 4 questions

Basic Operations

Beyond Bitcoin

Week 1 Evaluation: Blockchain Defined

Blockchain Structure

Block #0

Summary		Hashes	
Number Of Transactions	1	Hash	00
Output Total	50 BTC	Previous Block	00
Estimated Transaction Amount	0 BTC	Next Block	00
Transaction Fee	0 BTC	Block Hash	00
Height	1 (Main Chain)	Block Proof	00
Timestamp	2009-01-03 18:15:05		
Received Time	2009-01-03 18:15:05		
Relayed By	(Unknown)		
Difficulty	1		
Size	483824798		
Size	4,200 KB		
Weight	1,898,496.7		
Version	1		
Nonce	7363298965		
Block Reward	50 BTC		

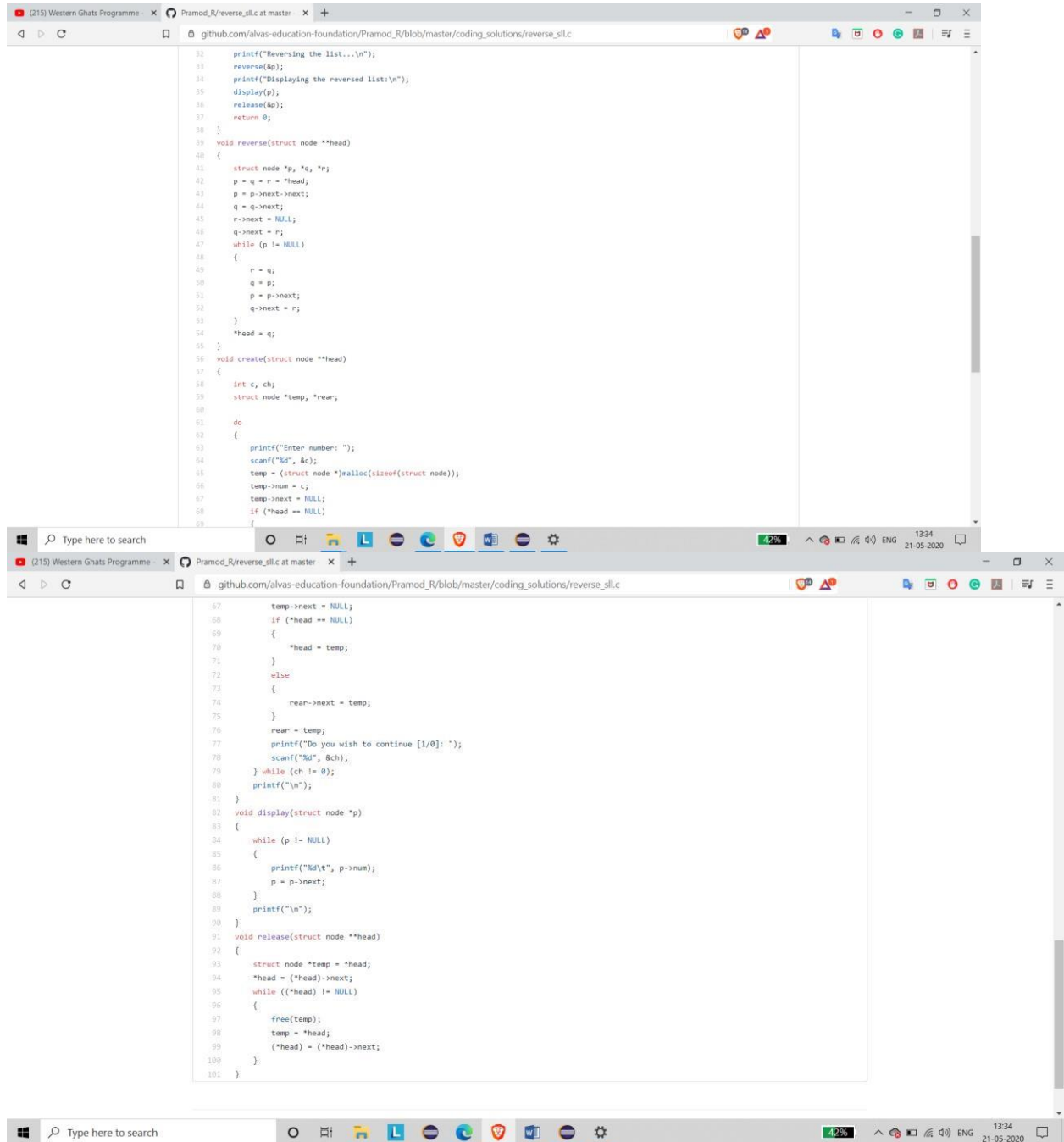
Transactions

This one transaction created a UTXO output for half in his address.

Save Note Discuss Download

The course I have chosen during the lockdown period is Blockchain basics. Since I had previously knew few topics about bitcoin I am continuing this course. Since Blockchain is gaining a lot interest in the IT Sector I have preferred to choose this course.

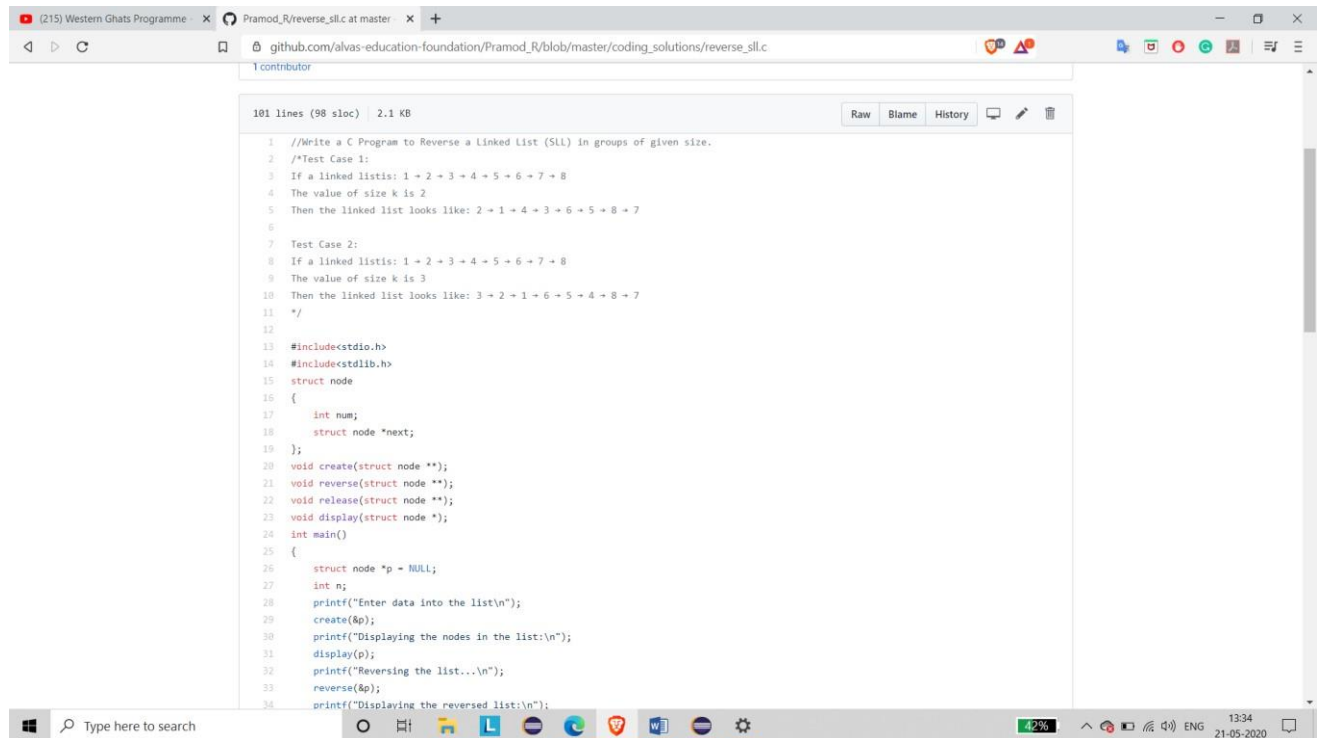
Coding Challenges Details: (Attach the snapshot and briefly write the report for the same)



The image displays two screenshots of a web browser showing a GitHub repository. The repository is titled "Pramod_R/reverse_sll.c at master" and is located at the URL "github.com/alvas-education-foundation/Pramod_R/blob/master/coding_solutions/reverse_sll.c". The code is written in C and implements a linked list reversal algorithm.

```
32 printf("Reversing the list...\n");
33 reverse(&p);
34 printf("Displaying the reversed list:\n");
35 display(p);
36 release(&p);
37 return 0;
38 }
39 void reverse(struct node **head)
40 {
41     struct node *p, *q, *r;
42     p = q = r = *head;
43     p = p->next->next;
44     q = q->next;
45     r->next = NULL;
46     q->next = r;
47     while (p != NULL)
48     {
49         r = q;
50         q = p;
51         p = p->next;
52         q->next = r;
53     }
54     *head = q;
55 }
56 void create(struct node **head)
57 {
58     int c, ch;
59     struct node *temp, *rear;
60
61     do
62     {
63         printf("Enter number: ");
64         scanf("%d", &c);
65         temp = (struct node *)malloc(sizeof(struct node));
66         temp->num = c;
67         temp->next = NULL;
68         if (*head == NULL)
69         {
70             *head = temp;
71         }
72         else
73         {
74             rear->next = temp;
75         }
76         rear = temp;
77         printf("Do you wish to continue [1/0]: ");
78         scanf("%d", &ch);
79     } while (ch != 0);
80     printf("\n");
81 }
82 void display(struct node *p)
83 {
84     while (p != NULL)
85     {
86         printf("%d\t", p->num);
87         p = p->next;
88     }
89     printf("\n");
90 }
91 void release(struct node **head)
92 {
93     struct node *temp = *head;
94     *head = (*head)->next;
95     while ((*head) != NULL)
96     {
97         free(temp);
98         temp = *head;
99         (*head) = (*head)->next;
100     }
101 }
```

The code defines a linked list structure with a `node` struct containing an integer `num` and a pointer to the next `node`. The `reverse` function reverses the list by iteratively moving nodes from the front to the back. The `create` function builds the list based on user input, and the `display` function prints the list. The `release` function frees the memory of the list nodes.



The screenshot shows a web browser displaying a GitHub repository page for a C program. The browser tabs include "(215) Western Ghats Programme" and "Pramod_R/reverse_sll.c at master". The address bar shows the URL "github.com/alvas-education-foundation/Pramod_R/blob/master/coding_solutions/reverse_sll.c". The file name "1 contributor" is visible. The code editor shows a C program with 101 lines (98 sloc) and a size of 2.1 KB. The code includes comments for test cases and the implementation of the reverse function. The Windows taskbar at the bottom shows the search bar, task view, and various application icons. The system tray on the right shows the battery level at 42%, network status, and the date and time as 13:34 on 21-05-2020.

```
1 //Write a C Program to Reverse a Linked List (SLL) in groups of given size.
2 /*Test Case 1:
3 If a linked listis: 1 → 2 → 3 → 4 → 5 → 6 → 7 → 8
4 The value of size k is 2
5 Then the linked list looks like: 2 → 1 → 4 → 3 → 6 → 5 → 8 → 7
6
7 Test Case 2:
8 If a linked listis: 1 → 2 → 3 → 4 → 5 → 6 → 7 → 8
9 The value of size k is 3
10 Then the linked list looks like: 3 → 2 → 1 → 6 → 5 → 4 → 8 → 7
11 */
12
13 #include<stdio.h>
14 #include<stdlib.h>
15 struct node
16 {
17     int num;
18     struct node *next;
19 };
20 void create(struct node **);
21 void reverse(struct node **);
22 void release(struct node **);
23 void display(struct node *);
24 int main()
25 {
26     struct node *p = NULL;
27     int n;
28     printf("Enter data into the list\n");
29     create(&p);
30     printf("Displaying the nodes in the list:\n");
31     display(p);
32     printf("Reversing the list...\n");
33     reverse(&p);
34     printf("Displaying the reversed list:\n");
```

The question I took to code is:

Write a C Program to Reverse a Linked List (SLL) in groups of given size.

/*Test Case 1:

If a linked list is: 1 → 2 → 3 → 4 → 5 → 6 → 7 → 8

The value of size k is 2

Then the linked list looks like: 2 → 1 → 4 → 3 → 6 → 5 → 8 → 7

Test Case 2:

If a linked list is: 1 → 2 → 3 → 4 → 5 → 6 → 7 → 8

The value of size k is 3

Then the linked list looks like: 3 → 2 → 1 → 6 → 5 → 4 → 8 → 7

Solution:

The above snapshot is the code which I have uploaded in my Github repository.