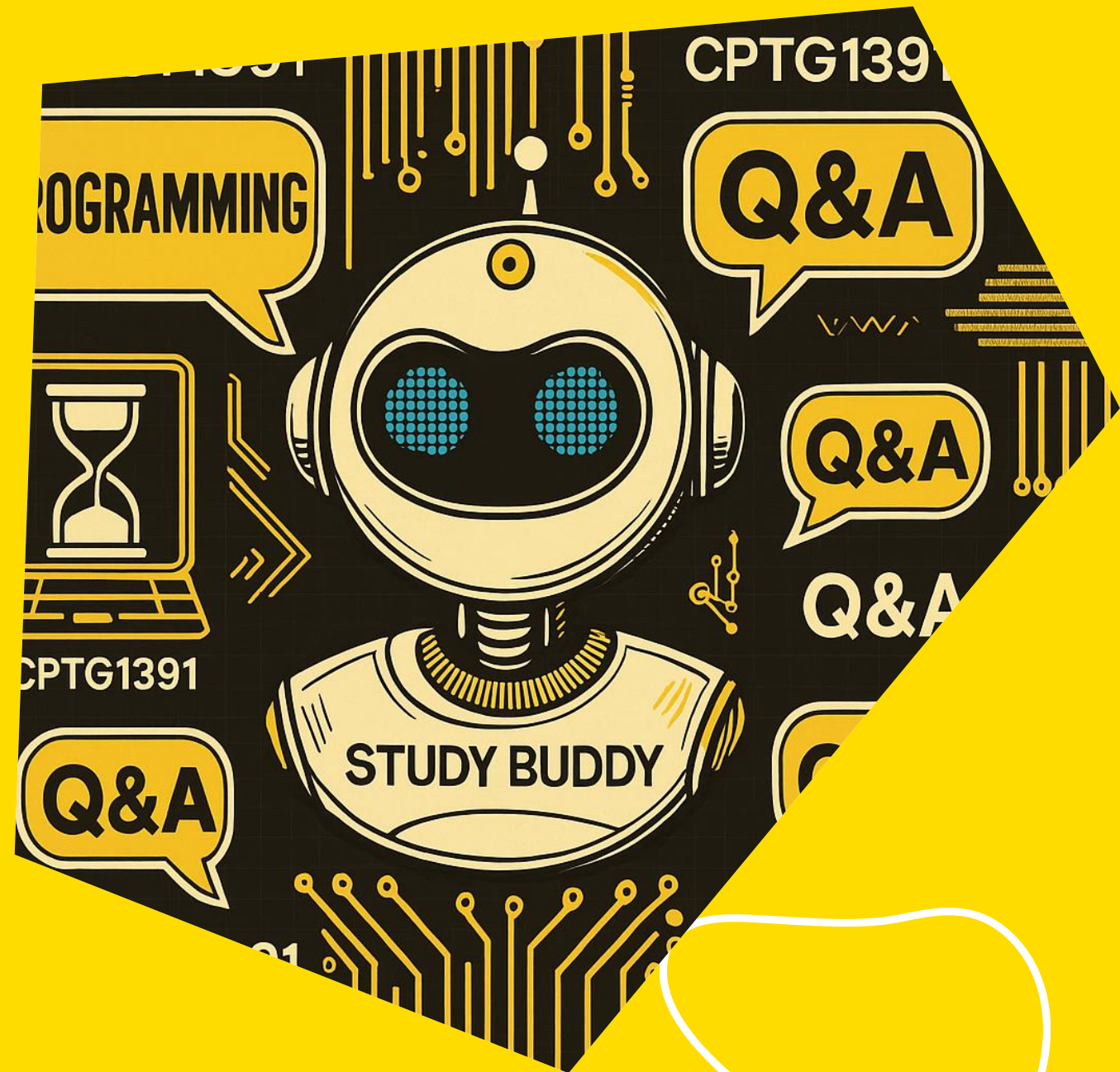


DPST1091 / CPTG1391
Introduction to Programming
Week 12 Lecture 2

Lecturer and Course Convener:

Dr Pantea Aria

More Revision



Agenda

- Today
- More exam questions

MyExperience Survey

Tell us what **worked** (and what **didn't**!) — I genuinely value your feedback



Link to the Live Lecture Code

<https://cgi.cse.unsw.edu.au/~dp1091/26T2/code/12>

Live lecture code is written for teaching, not perfection.
It may include extra comments and may not always follow
ideal coding style.



Array Hurdle Example (●●○)

File: array_odd_even.c

Read integers until a **negative number** is entered.
Then print:

- all odd numbers on one line
- all even numbers on the next line

Example:

```
$ ./array_odd_even
1
2
3
2
-42
```

```
Odd numbers were: 1 3
Even numbers were: 2 2
```

Array Hurdle Example (●●○)

File: array_max_subarray_sum.c
Find the **maximum sum of a contiguous subarray**.

```
int max_subarray_sum(int size, int array[]);
```

Array Hurdle Example (●●○)

File: array_multiplied.c

Write a program that reads integers into an array until two numbers multiply to **56**.

Example:

2

3

28

→ 28 * 2 = 56

Array Hurdle Example (●●○)

File: array2d_min_row_sum.c

Given a 2D array, calculate the sum of the **smallest value in each row.**

```
int min_row_sum(int size, int array[NUM_ROW][NUM_COL]);
```

Linked List Hurdle Example (●●◌)

File: list_insert_ordered.c

Insert a new value into a **sorted linked list**, keeping the list in order.

Example:

```
./list_insert_sorted 3 1 2 5  
[1, 2, 3, 5]
```

```
struct node *insert_sorted(struct node *head, int number);
```

Linked List Hurdle Example (●●◌)

File: list_delete_div.c

Delete the **first node** whose value is divisible by a given number.

Example:

```
./list_delete_div 3 2 9 1 6  
[2, 1, 6]
```

```
struct node *delete_div(int value, struct node *head);
```

Non-Hurdle Questions (●●●)

File: `common_argument.c`

Find the **most frequently used command line argument** and print how many times it appears.

Example:

```
./common_argument hooray no hooray hooray potato  
Most common argument is hooray and it occurs 3  
times
```

If no arguments:

```
There are no arguments
```

Non- Hurdle Questions (●●●)

File: isogram.c

An **isogram** is a word where no letter appears more than once.

Write a program that reads input until EOF and checks whether each word is an isogram.

Example:

```
Hello  
This is not an isogram
```

Non- Hurdle Questions (●●●)

File: substring.c

Read words from input and check if a **given command line argument** is a substring of each word.

If it is, print the word.

Example:

```
./substring courage age bloom encourage blooming  
blooming
```

Voice of the Student

Anonymous ongoing feedback
Anything you wanted to share with me



Voice of the Student



[Voice of the Student – Fill out form](#)

Thank you!!!

A big thank you to all staff involved in delivering the course, your support has been invaluable.

And congratulations to all students for your hard work and engagement throughout the term.

We hope you've learned a lot!

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