Functional Programming
Introduction to module

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Agenda

- Why Functional Programming
- Overview of course
- Overview of Assessment

Why Functional Programming

- A different way to think and think about programming and solving problems.
- A great way to get good at recursion
- A lot of companies are using it..

What’s different from what you’ve seen

How to do it, not what to do

What to do, not how to do it.

What’s different from what you’ve seen

Explain to your friend : What is an orange peanut?
(He only knows brown peanuts)

Imperative

How to do it, not what to do

That brown peanut you have : Paint it orange. That’s what an orange peanut is.

Functional

What to do, not how to do it.

That brown peanut that you have:
If you had another peanut that’s just like it in every way except that it’s orange.
That’s what an orange peanut is.

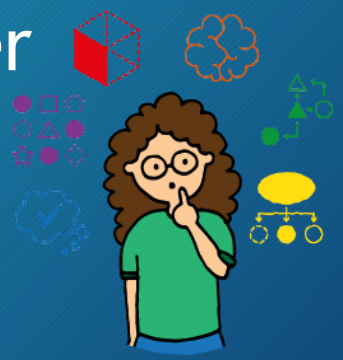
Differences

Imperative	Functional
Loops	No loops !!!
Variables – use them for e.g. accumulating values	Variables cannot be changed **(immutability)**
If [condition] then [command] else [command]	If [condition] then [value] else [value]

More later ….

So how will we approach this module?

- 14 weeks (12 weeks of tuition)
- 4 hours per week
- Each topic will have associated with it:
  - Lecture/s
  - Labs
- Each hour contact where we have either
  - lecture OR
  - Labs practising :
    - Techniques we have seen in lectures
    - Going through pre-defined sets of exercises online.



Timetable of Classes

Functional Programmming Timetable for all students (i.e. no sub-groupings)				
Monday	Tuesday		Thursday	Friday
09:15:00 - 10:15 IT119				
			11:15 - 13:15 IT101	
	12:15 - 13:15 IT220			

Breakdown of Classes

SEMESTER 2		S	M	T	W	T
JAN	WEEK					
	1	19	20	21	22	23
	2	26	27	28	29	30
FEB	3	2	3	4	5	6
	4	9	10	11	12	13
	READING	16	17	18	19	20
	5	23	24	25	26	27
MAR	6	2	3	4	5	6
	7	9	10	11	12	13
	8	16	17	18	19	20
	9	23	24	25	26	27
APR	10	30	31	1	2	3
	11	7	8	9	10	11
	EASTER 1	14	15	16	17	18
	EASTER 2	21	22	23	24	1
MAY	12	28	29	30	1	2

Breakdown of Assessment

		Assessment Breakdown		
JAN	WEEK	Fomative	Summative	Weight
	1			
	2			
FEB	3		ghci-inclass	5%
	4			
	READING			
	5			
MAR	6			
	7		stack in-class	5%
	8	First Phase of Programming Assignment	Programming Assignment	
	9			0%
APR	10			
	11			
	EASTER 1			
	EASTER 2			
MAY	12			40%

Ethos of Module

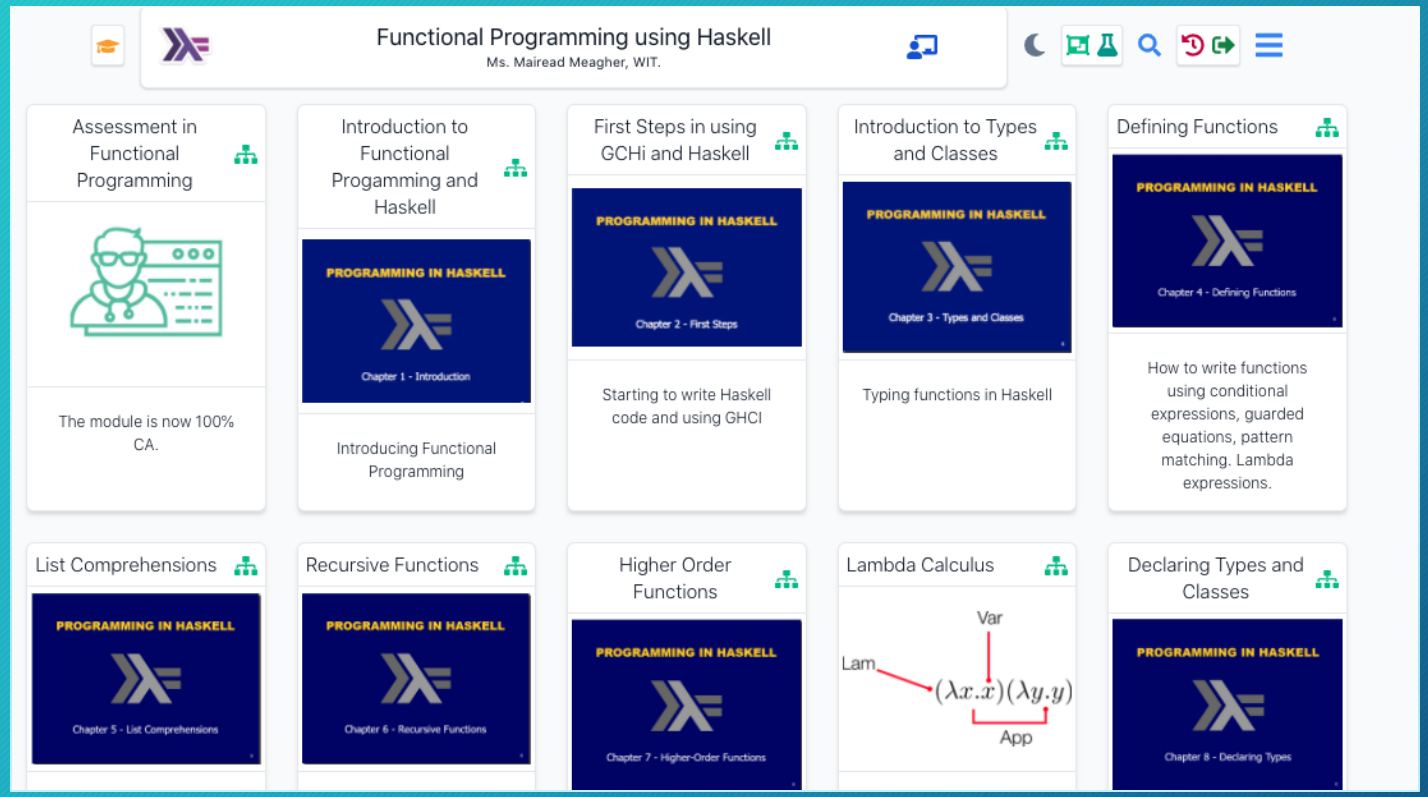
- Practice, practice, practice,
- Engagement – ask questions,
- Work submitted must be your own,
- Help me to help you.

Brief Overview of Course

We will use

- Moodle – used for linking the current week's content to the appropriate topic from the tutors course
- Tutors (where course material is curated)
- Slack for communication within the group and to me. This will be the main channel for communication.

Brief Overview of Course - tutors



https://tutors.dev/course/fun-prog-25

Any questions?

Contact Me

Preferably the Slack channel

Or

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