COMP120: Creative Computing: Tinkering

1: Computing Professionals

Learning Outcomes

- **Analyse** the role of computing professionals in the games industry
- Explain the role and basic functions of the IDE
- Produce some basic Python programs
- **Apply** pair programming practices to solve simple problems

FALMOUTH
UNIVERSITY

Professional Roles

TwitterFall Activities

- Self-organise into small groups of 3-4
- Load a Twitter app, or login to Twitter on a PC
- Conduct research on the given topic
- Post a tweet when you find something interesting

- Please use the hashtag for the module (i.e., `#comp120`)
- Also please ensure you use the @ symbol to open and continue discussions

TwitterFall Activity #1

Answer the follow question:

"What do computing professionals do, *generally*?"

You have:

- 10 minutes to conduct research and tweet to `#comp120`
- 5 minutes to debrief

TwitterFall Activity #2

Answer the follow question:

"What do computing professionals do, *in games*?"

You have:

- 10 minutes to conduct research and tweet to `#comp120`
- 5 minutes to debrief

TwitterFall Activity #3

Answer the follow question:

"What career options are available to graduates with B.Sc. degrees in computing?"

You have:

- 10 minutes to conduct research and tweet to `#comp120`
- 5 minutes to debrief

FALMOUTH
UNIVERSITY

Professional Development

Continuing Professional Development

- Games industry is fast-moving
- Learning does not end at school and university
- A goal of this course is to facilitate your development as self-regulated learners
- Gradually, more independence across each year of study
- This is a science degree, which means you will become a producer of knowledge, not just a consumer of knowledge!

Continuing Professional Development

- It isn't easy!
- Many of you will encounter programming anxiety
- Some will experience a sense of fear or a sense of hopelessness — it is more common than you think
- Some will need more support than others — this isn't a bad thing
- Everyone who puts in the time and effort will eventually achieve mastery

FALMOUTH
UNIVERSITY

Professional Practice

Pair Programming

Pair programming is an agile software development technique in which two programmers work together at one workstation.

One, the driver, writes code while the other, the observer or navigator, reviews each line of code as it is typed in.

The two programmers switch roles frequently.

Pair Programming

Watch the video at:

`https://www.youtube.com/watch?v=ET3Q6zNK3Io`

(5 minutes)

Pair Programming

Review the guidelines at:

`http://www.pairprogramming.co.uk/`

(10 minutes)

Pair Programming

Watch the video at:

`https://www.youtube.com/watch?v=ONnYCT_LJio`

(5 minutes)

Pair Programming Challenge

- In pairs
- **Implement** the code excerpt
- **Fix** the errors in the code excerpt
- **Modify** the code excerpt to incorporate functions and arguments
- **Post** your solution to the `#comp120` slack channel

You can learn more about functions and arguments at:

`https://docs.python.org/3/tutorial/controlflow.html#defining-functions`

(20 minutes)

Pair Programming Challenge

The function:

```
def madlib()
```

Should become:

```
def madlib(name, pet, verb, snack)
```

Pair Programming Challenge

```
def madlib():
    name = 'Mike'
    pet = 'Spyro'
    verb = 'ate'
    snack = 'doughnuts'
    line1 = 'once upon a time,' + name + ' walked'
    line2 = ' with ' + pet + ', a trained dragon.'
    line3 = 'Suddenly, ' + pet + ' announced,'
    line4 = 'I really want some ' + snack + '!'
    line5 = name + ' complained. Where am I going to
        get that?'
    line6 = 'Then ' + name + 'found a wizard's wand.'
    line 7 = 'With a wave of the wand, '
    line8 = pet + ' got ' + snack + '. '
    line9 = 'Perhaps surprisingly, ' + pet + ' ' +
        verb + '  ' + snack
    print line1 + line2 + line3 + line4
    print line5 + line6 + line7 + line8 + line9
```