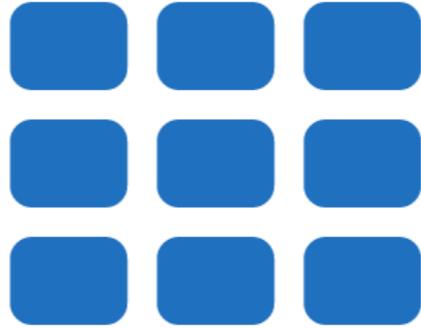
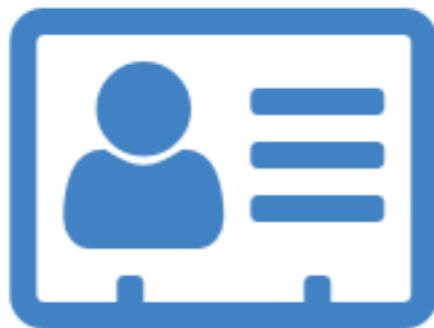


Overview of Structure & Purpose of the Online Materials

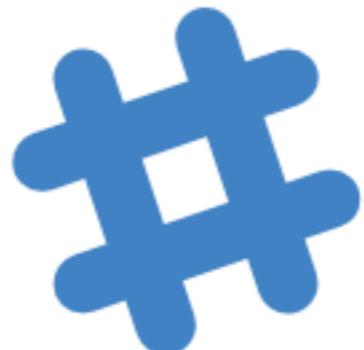
Tutors



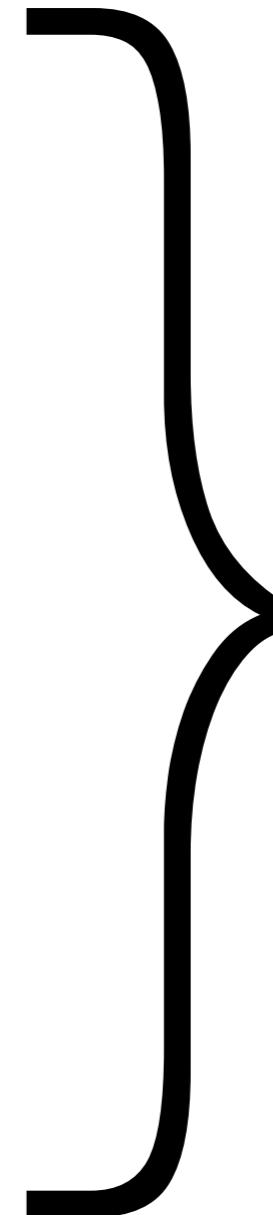
Adobe Connect



Slack

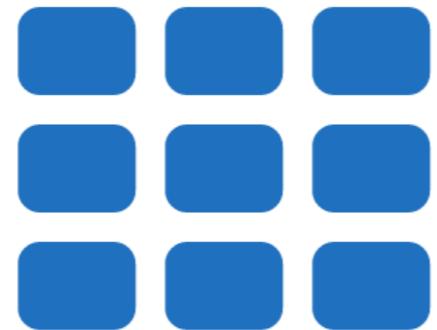


Moodle

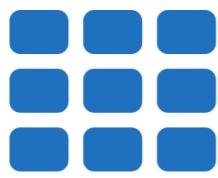


4 Key
Resources

Tutors



Primary location
of module
lectures, lab and
video material



Programme Home Page

Links to all resources + Modules

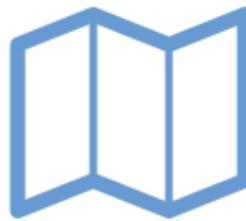
Higher Diploma in Computer Science 2018

Department of Computing & Mathematics, WIT



Guides

Programme
Introduction



structure · philosophy ·
materials · module
introductions

Schedules &
Handbooks



timetables · assessment
schedules · programme
handbooks

Learning to
Learn Online



learning resources · guides
· tools · howtos

Semester 1

Programming
Fundamentals



algorithms · data structures
· processing · java · classes ·
libraries

10 Credits

Web
Development



html · css · layout · web
apps · web frameworks ·
deployment

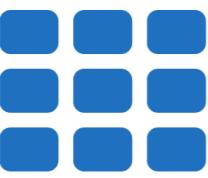
5 Credits

ICT Skills
Studio



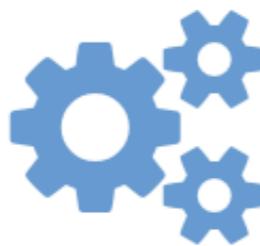
javascript · node · express ·
git · github · glitch

5 Credits



Semester 1

Programming Fundamentals



algorithms · data structures · processing · java · classes · libraries

10 Credits

Web Development



html · css · layout · web apps · web frameworks · deployment

5 Credits

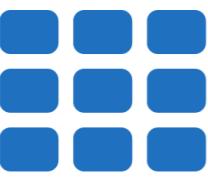
ICT Skills Studio



javascript · node · express · git · github · glitch

5 Credits

Links to Individual Module
Home Pages



Programme
Home

Adobe
Connect

Moodle

Slack

Building Modern Web Applications & Services
Eamonn de Leastar, WIT

Programme

Topic

Topics

1: Introduction

- HTML
- CSS
- JavaScript
- RESTful AREA
- HTML5
- CSS3
- JavaScript Orientation
- Ajax & APIs
- HTML
- Sessions
- Models
- Validation
- Deployment
- APIs
- Model Sending
- HTML5
- CSS3
- Javascript
- Initial Page request
- Data Request
- Updated XML Data
- JavaScript Call
- Updated HTML
- Server
- AJAX Routines
- Browser-Viewable Page

2: JavaScript Review

3: DOM & JQuery

4: Ajax & APIs

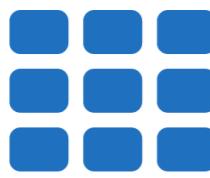
Re-introduction to Javascript.
Review language structure and usage.

Review the nature & structure of the DOM. Basics of JQuery library

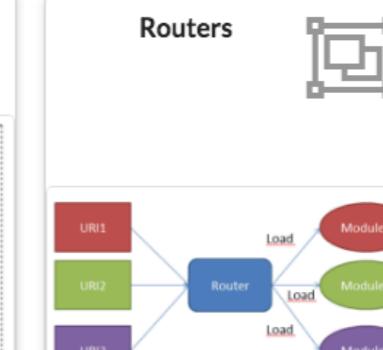
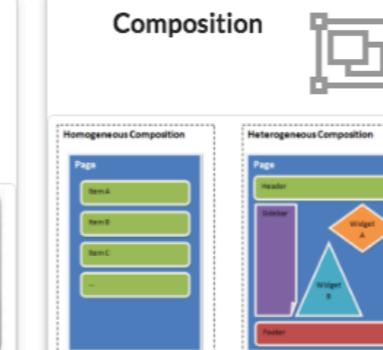
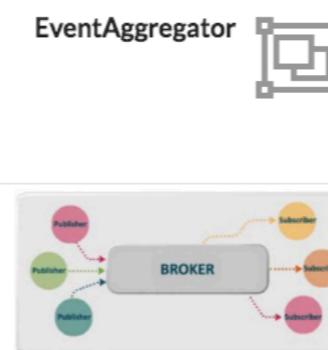
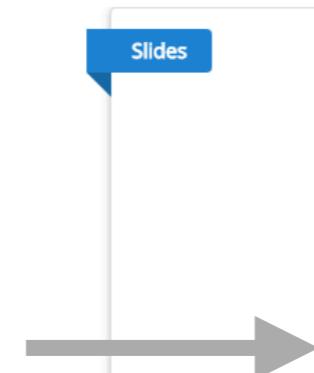
Learn how to invoke REST services in JQuery using ajax features. Explore github and fousquare APIs in this context.

Introducing the module, assessment and schedule.

5· Hani Applications 6· Views 7· Sessions 8· Models



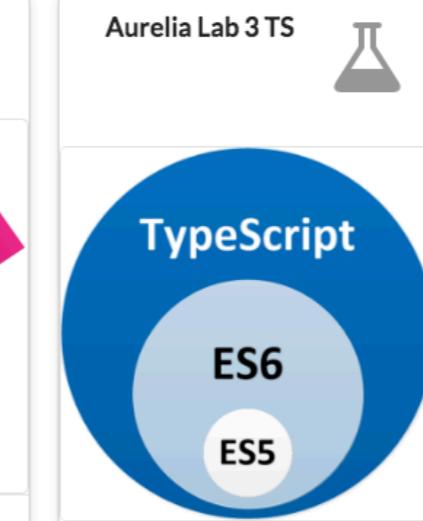
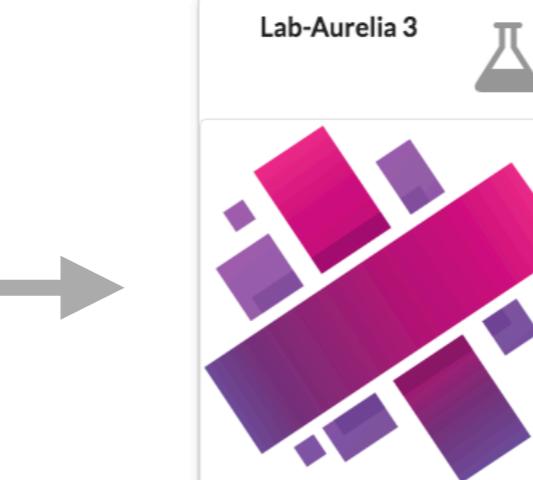
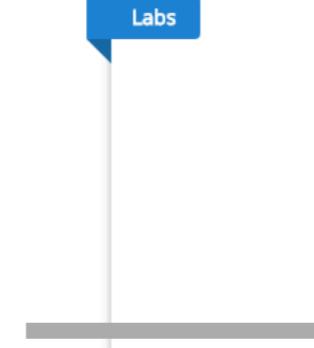
PDFs of Slides



Videos of Talk Accompanying Slides



Labs





Module Lab

Lab Steps + Exercises



Lab Instructions



Starter Project

If you are not familiar with Typescript - it might be worth a quick review of the language here:

- <https://www.typescriptlang.org/docs/handbook/typescript-in-5-minutes.html>

Make sure you have the latest typescript and aurelia-cli installed on your workstation:

```
npm install typescript -g
npm install aurelia-cli -g
```

Create a new Aurelia project:

```
au new donation-client-ts
```

Make sure to select [2] for typescript:

Would you like to use the default setup or customize your choices?

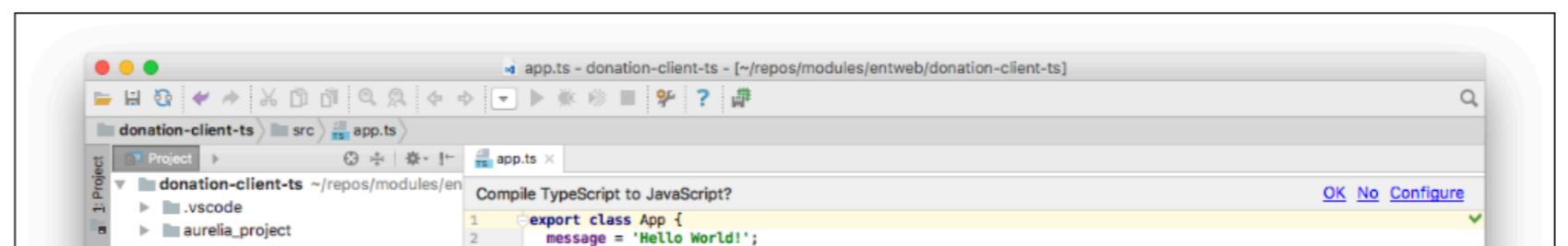
1. Default ESNext (Default)
A basic web-oriented setup with Babel and RequireJS for modern JavaScript development.
2. Default TypeScript
A basic web-oriented setup with TypeScript and RequireJS for modern JavaScript development.
3. Custom
Select loaders (requirejs/systemjs), bundlers (cli/webpack), transpilers, CSS pre-processors and more.

[Default ESNext]>2

Accept all other defaults.

You should be able to immediately open the project in Webstorm.

When invited to compile Typescript to Javascript - press 'OK'



Adobe Connect



Live Webinars
Delivery

Presenter

The screenshot shows a Adobe Connect meeting interface. On the left, there's a presentation slide titled "Web Development" featuring icons for HTML, CSS, and Java. The main content area contains a bulleted list of learning objectives:

- Understand the fundamentals of the HTML markup language.
- Understand the role of Human Computer Interaction and manipulate CSS to present HTML content.
- Be able to integrate HTML, CSS and Java script to structure simple web sites.
- Understand how a dynamic web page is generated and be familiar with the role of html templating techniques
- Have an initial exposure to a web application framework and understand the roles of Models, Views and Controllers in this context.

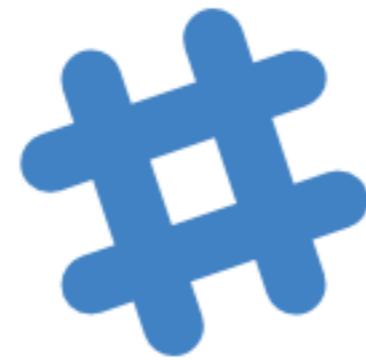
On the right side, there's a video feed of the presenter, Eamonn Deleastar, wearing glasses and a patterned sweater. Below the video is a list of attendees and a chat window. Arrows point from the text labels at the bottom to specific parts of the interface:

- A vertical arrow points from the text "Topic Slides of demonstrations" to the presentation slide on the left.
- A horizontal arrow points from the text "Attendees + chat" to the attendees list and chat window on the right.
- A diagonal arrow points from the text "Attendees + chat" up towards the video feed.

Topic Slides of
demonstrations

Attendees + chat

Slack



Lab Tuition
Support + peer-
to-peer
communications
& self help

Slack – main things to remember



1. CHANNELS

The screenshot shows the Slack interface. On the left, the sidebar lists channels: WIT HDip in Co..., # general, # hdip-programming, # hdip-webdev, # prog_curriculum, and programming_test (which is selected and highlighted in green). Below that is the Direct Messages section, which includes slackbot and several team members: Colm Dunphy (WIT Lecturer), Des O'Donovan, Diarmuid (WIT Lecturer), Eamonn de Leistar (WI...), James, Ken McCarthy, Martina Mullally, Niall Lonergan, Pete (WIT Support), and Siobhán Drohan. At the bottom of the sidebar is an 'Invite People' button. The main area shows a conversation in the programming_test channel. A message from Diarmuid (WIT Lecturer) at 1:59 PM says: "Here it is - "syntax error"" followed by a code snippet: "16 //Drawing an circle
17 ellipse(250,130,25,25);
18". Colm Dunphy (WIT Lecturer) replies at 1:59 PM: "i got it ... let me have a look ... 1 sec". Diarmuid (WIT Lecturer) responds at 2:04 PM: "Their is a small syntax error on line 12 - missing semicolon. see if that fixes it". Colm Dunphy (WIT Lecturer) replies at 2:04 PM: "let me try.thanks". Diarmuid (WIT Lecturer) asks at 2:06 PM: "Is this what the program should produce?". He then uploads an image titled "image.png" which shows a simple drawing of a circle on a rectangle. The message ends with a blue box containing the text "3. TYPE HERE" with a cursor.

2. DIRECT MESSAGES

4. CLICK TO SELECT FILES/CONTENT TO UPLOAD

The screenshot shows the profile of Colm Dunphy (WIT Lecturer). It includes a large portrait photo of him smiling. Below the photo, his name is listed as "cdunphy" with a green online status indicator. His role is listed as "Lecturer". There are buttons for "Edit Profile" and "Settings". To the right, there are sections for "Status" (with a placeholder "What's your status?"), "Display name" (Colm Dunphy (WIT Lecturer)), "Timezone" (4:03 PM local time (change)), "Email" (cdunphy@wit.ie), and "Role" (Owner of WIT HDip in Computer Science).

The screenshot shows the Processing 3.3.6 IDE. The code in the editor is:

```
lab00_solution_exercise1
background(200);

//Drawing an ellipse
ellipse(200,100,20,60);

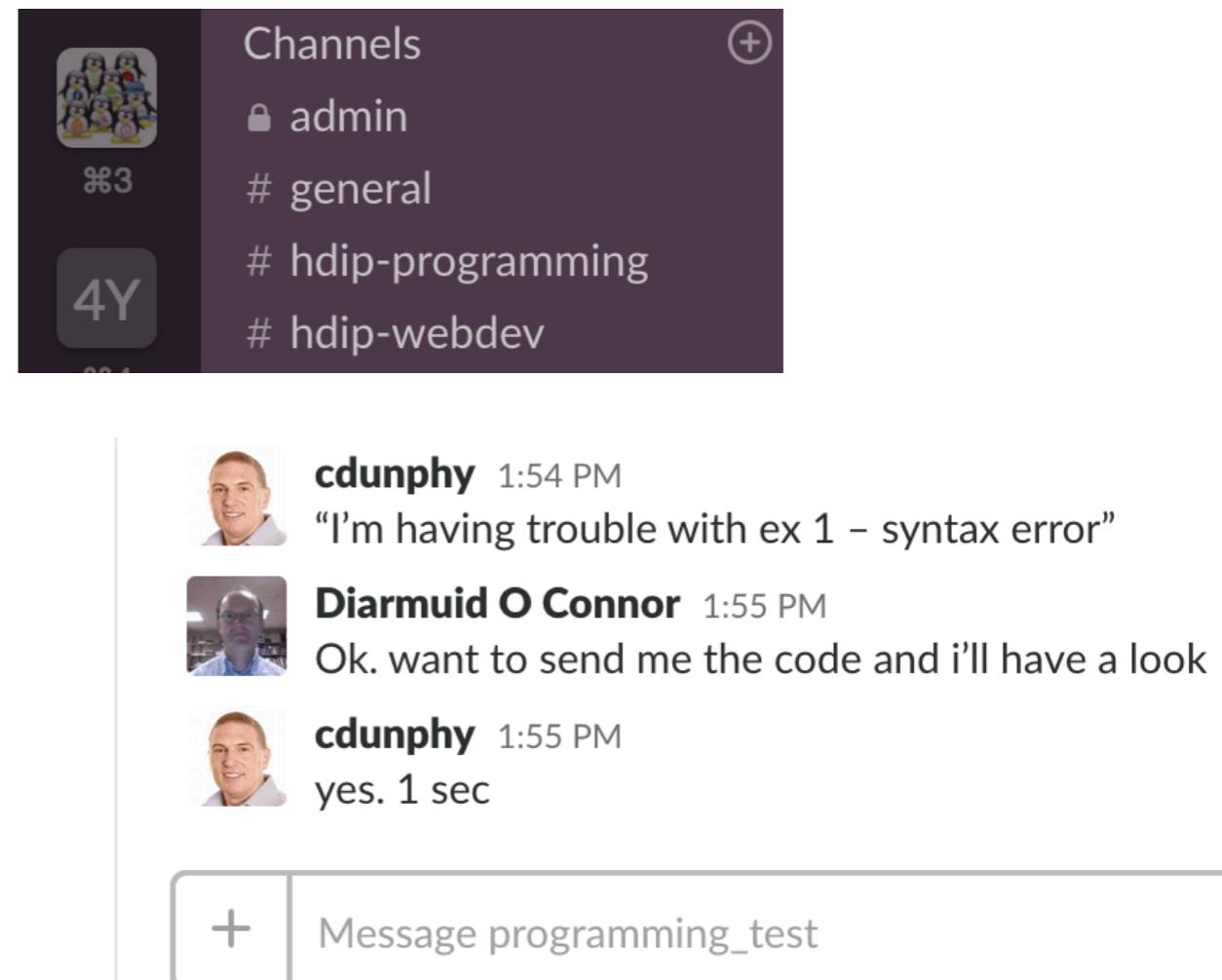
//Drawing a rectangle
rect(100,100,200,100);

//Drawing a square
rect(150,200,20,20);

//Drawing a line
line(100,100,300,200);

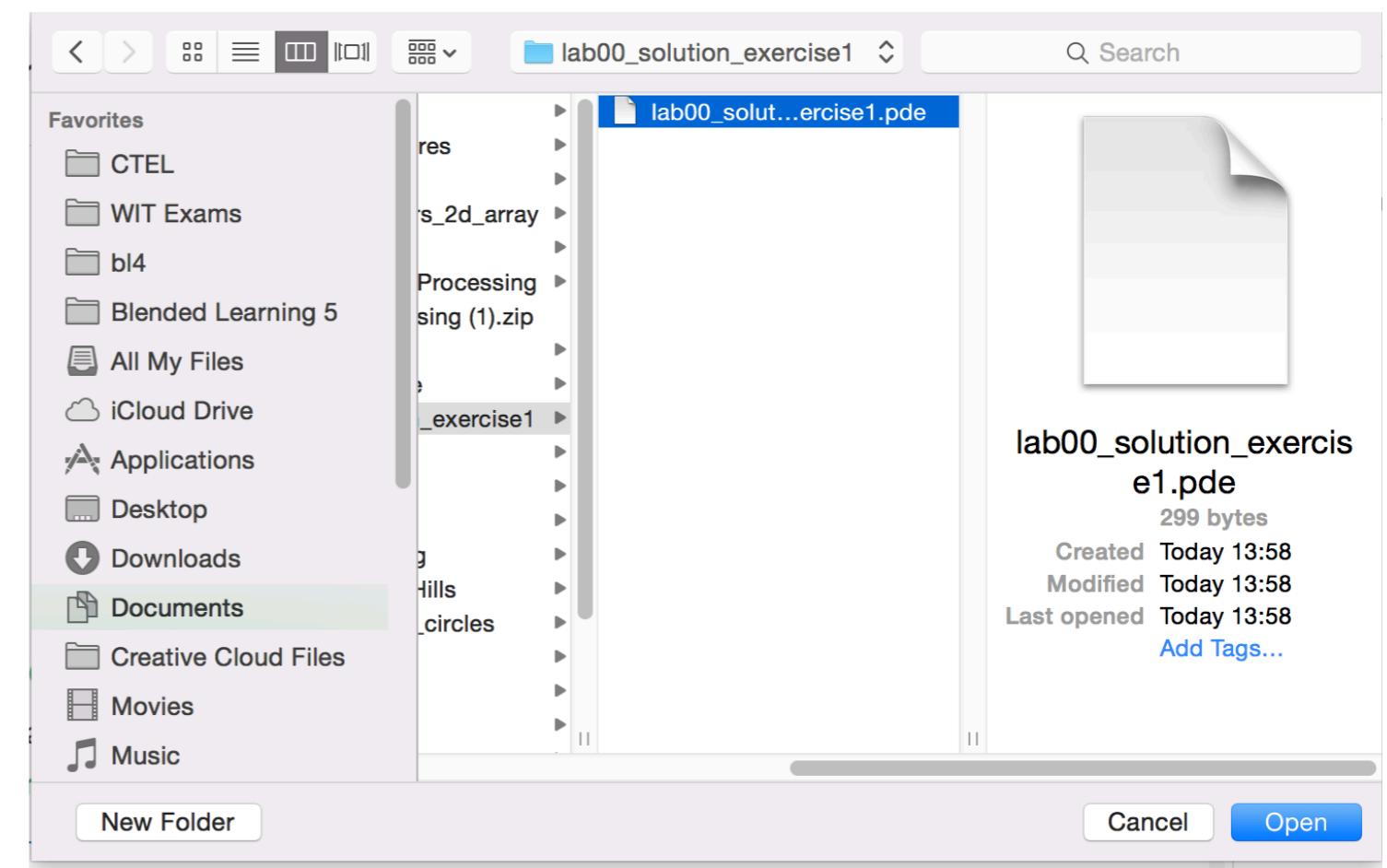
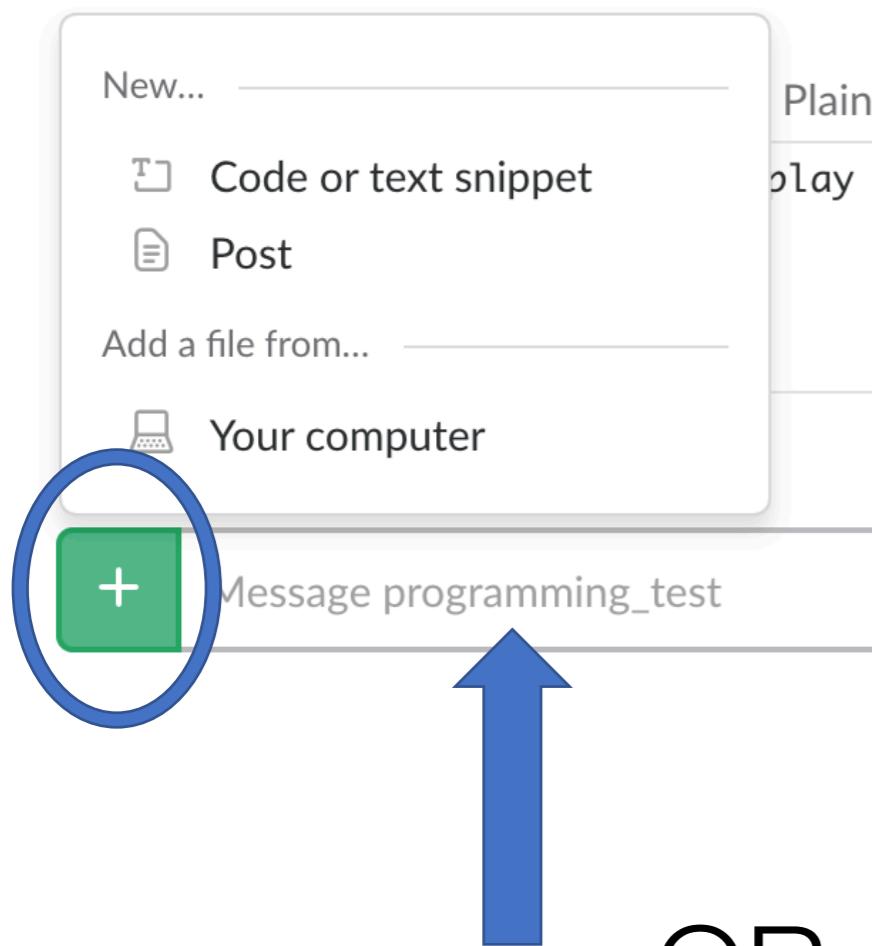
//Drawing an circle
ellipse(250,130,25,25);
```

A red error bar at the bottom indicates a syntax error: "Syntax error, maybe a missing semicolon? expecting SEMI, found 'line'".



Select the
Channel in Slack
& post your issue

Uploading content for discussion



OR

drag n' drop the file to here

Simple issue resolved on chat text by peers or tutor

 **cdunphy** 1:59 PM ☆ added and commented on this Plain Text snippet: [lab00_solution_exercise1.pde](#) ▾

```
1 //Setting up the display window and strokeW  
2 size(400,300);  
3 background(200);  
4  
5 //Drawing an ellipse
```

   1 Comment

+ Click to expand inline (18 lines)

“ Here it is - “syntax error”

 **Diarmuid O Connor** 1:59 PM i got it ... let me have a look ... 1 sec

 **cdunphy** 1:59 PM 

 **Diarmuid O Connor** 2:04 PM Their is a small syntax error on line 12 - missing semicolon. see if that fixes it

 **cdunphy** 2:04 PM let me try.thanks

Yes that got rid of the error

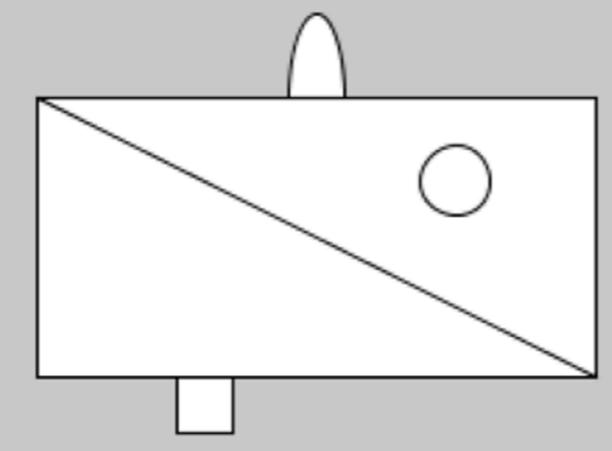
Private 1 on 1 help required -> Direct Message (DM)

Channels

- # hdip-programming
- # hdip-webdev
- 🔒 prog_curriculum
- programming_test**
- Direct Messages ⊕
- slackbot
- cdunphy (you)
- Des O'Donovan
- Diarmuid O Connor
- Eamonn de Leastar
- James
- Ken McCarthy
- Martina Mullally
- Niall Lonergan
- Pete (WIT)
- Siobhán Drohan
- + Invite People
- Apps ⊕

Yes that got rid of the error

cdunphy 2:06 PM uploaded and commented on this image: [image.png](#) ▾



“ Is this what the program should produce?

Diarmuid O Connor 2:09 PM Lets continue this on DM. ok?

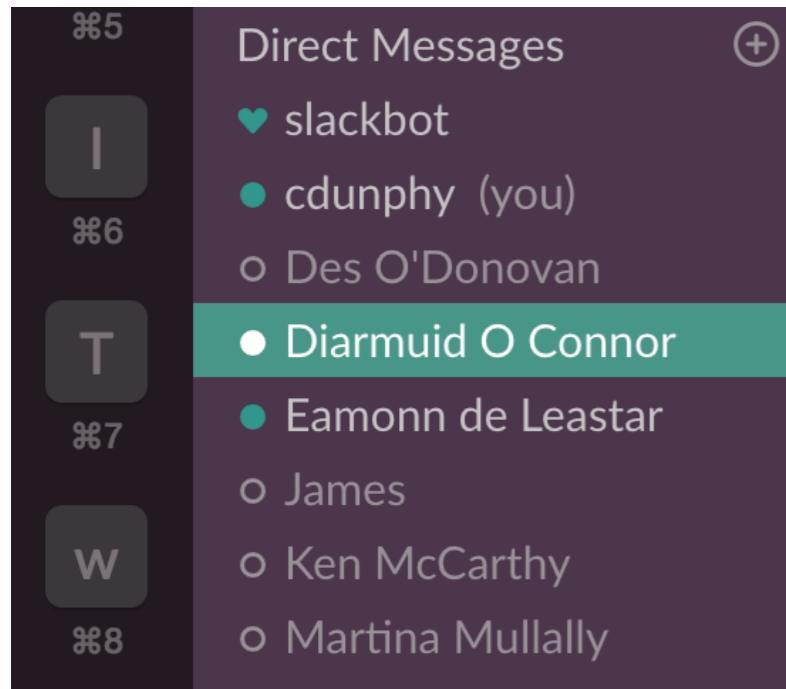
cdunphy 2:09 PM Yes

+ Message programming_test

Direct Messages ⊕

- slackbot
- cdunphy (you)
- Des O'Donovan
- Diarmuid O Connor**
- Eamonn de Leastar
- James
- Ken McCarthy
- Martina Mullally

Lecturer sharing screen (call required)



Diarmuid O Connor 2:10 PM ☆

hi again

cdunphy 2:10 PM

I'm on the private DM channel now

Hi

Diarmuid O Connor 2:12 PM

their is a small problem in your sketch. the ellipse at the top is partially hidden. Maybe we should screen share to continue?

cdunphy 2:13 PM

Thanks Diarmuid

Diarmuid O Connor 2:13 PM

i will call you

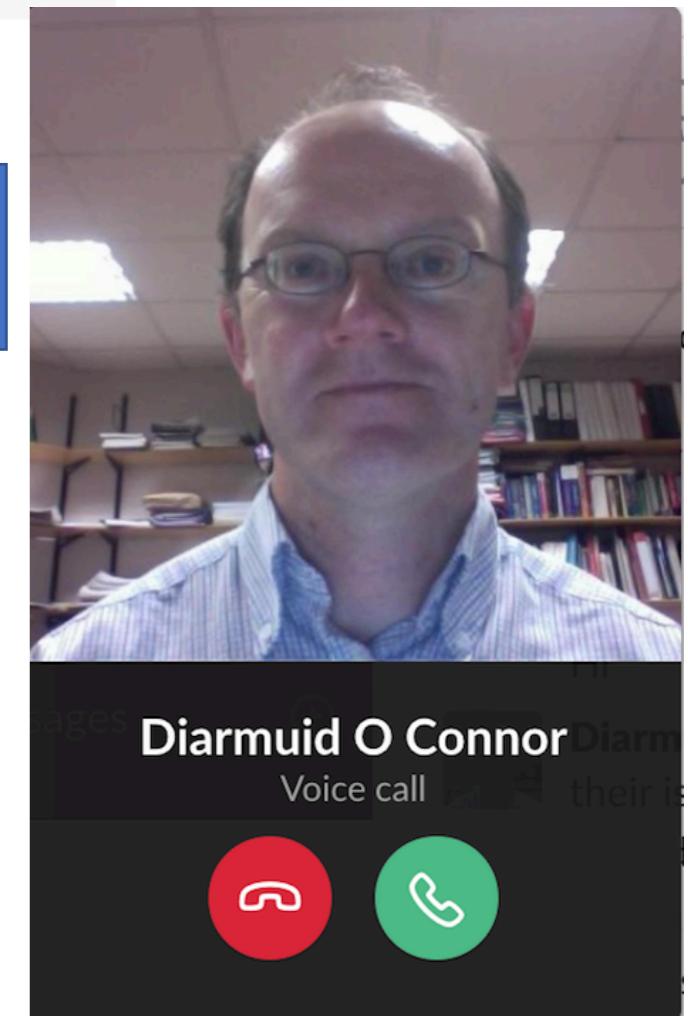
cdunphy 2:13 PM

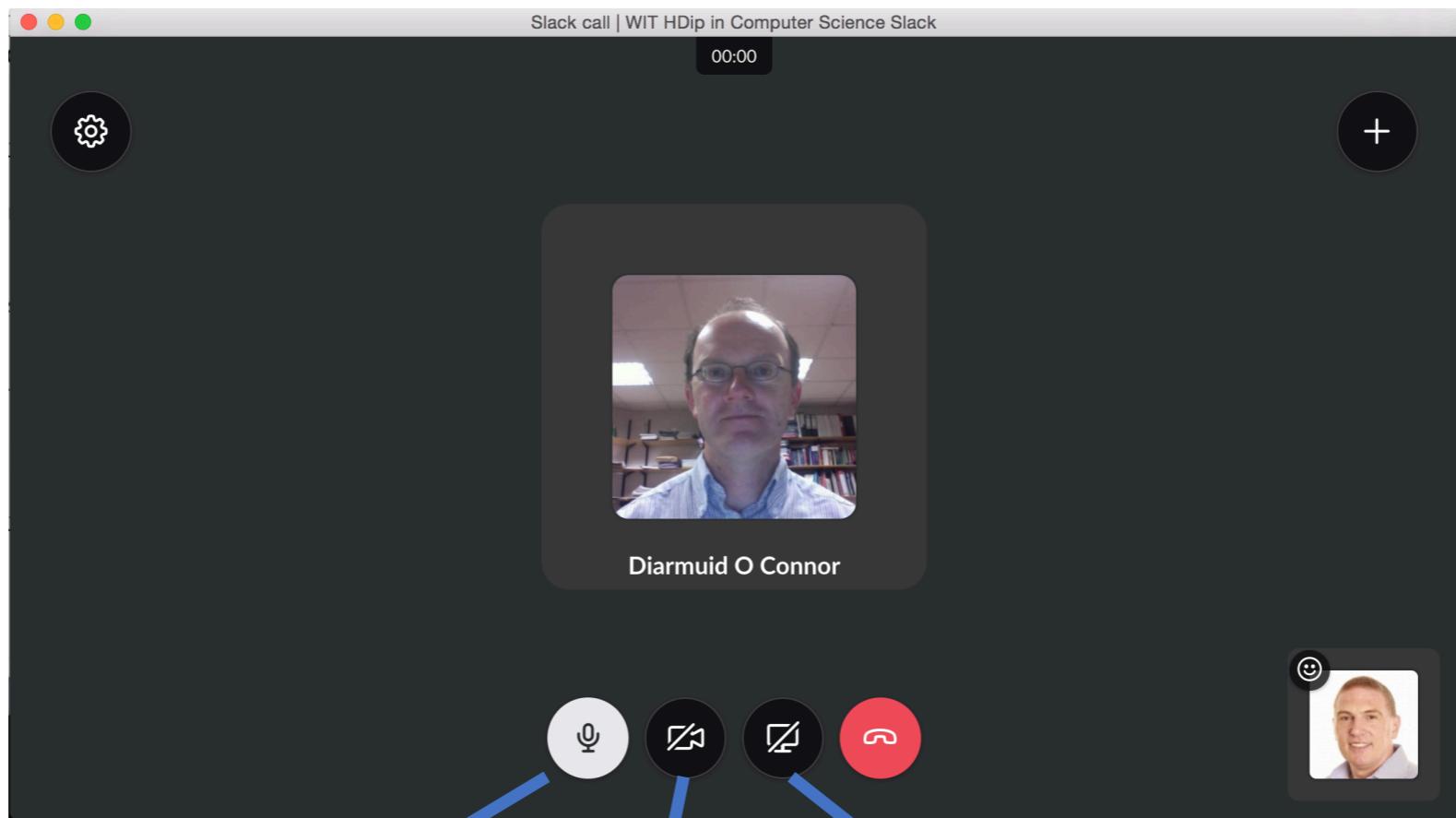
fire away

Diarmuid O Connor 2:14 PM

Started a call

Diarmuid O Connor is calling you
Started at 2:14 PM



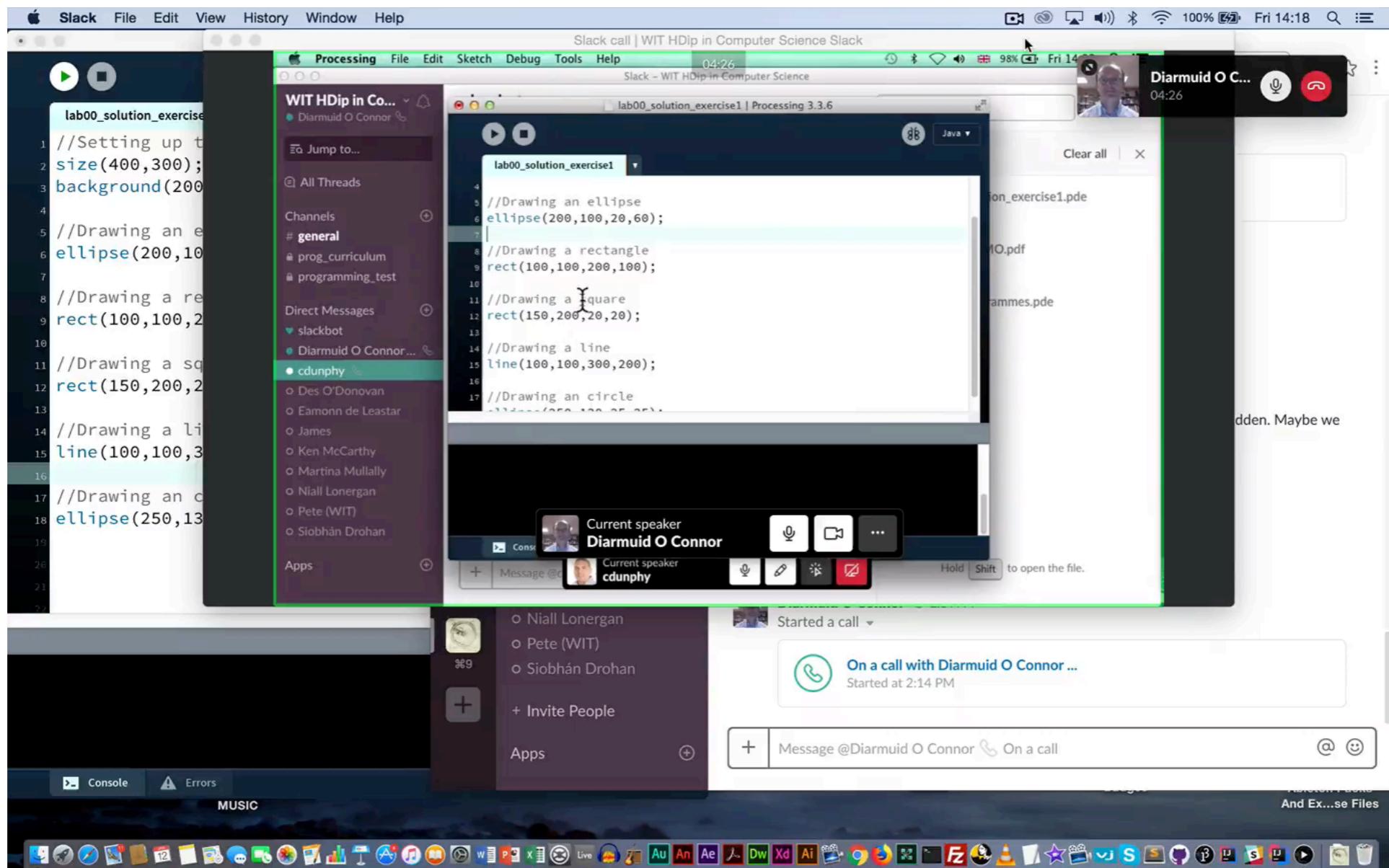


Mic

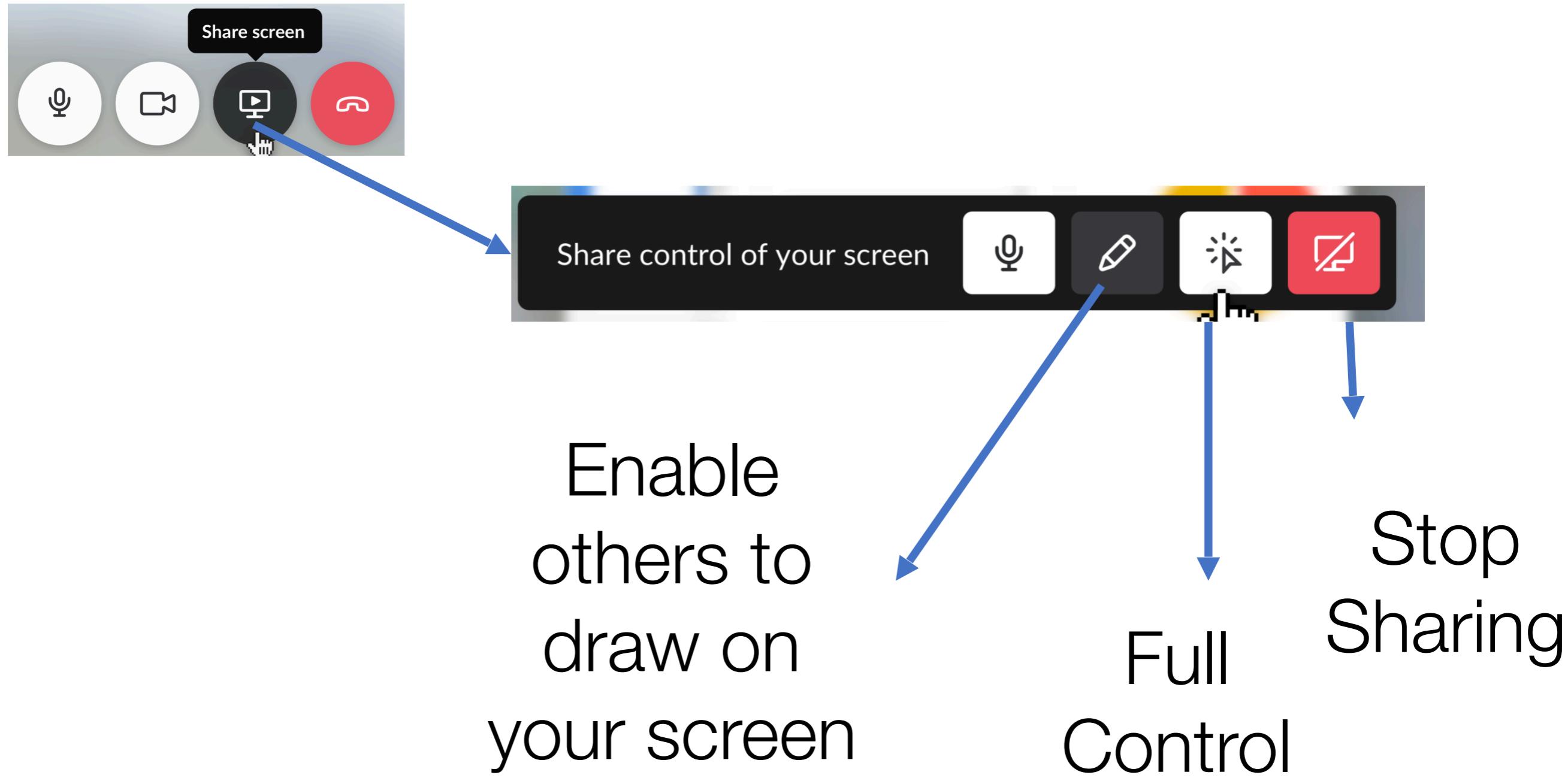
Video
Webcam

Screen
Desktop

Call in Progress with lecturer's screen shared (call required)



Student screen sharing options



Moodle



WIT E-Learning
Platform

Used for Assignment
Submission +
feedback + grades

Occasionally used for
additional document
distribution

Supplementary Programme Information Area

moodle.wit

Eamonn Deleastar
Student-2017-2018 

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 [Question bank](#)

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Higher Diploma in Computer Science

[My Home](#) / [Higher Diploma in Computer Science](#)

Programme Information

[Jump to...](#)

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Programming Fundamentals

Assignment Submissions

moodle.wit

Eamonn Deleastar
Student-2017-2018

Grades

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Programming Fundamentals

Assignment Drop Boxes

Assignment 1

 Submit

Assignment 2

 Submit

Assignment 3

 Submit

PREVIOUS SECTION  Programme Information

NEXT SECTION  Web Development

Web Development Assignment Submissions

Grades

The screenshot shows a Moodle-based LMS interface. At the top right, the title "Higher Diploma in Computer Science" is displayed above the breadcrumb navigation "My Home / Higher Diploma in Computer Science / Web Development". On the left, a sidebar menu includes "Table Of Contents", "Programme Information", "Programming Fundamentals", and "Web Development" (which is highlighted). Below this is another sidebar titled "Administration" containing "Module administration" (with "Grades" selected), "Question bank", "Competencies", "Switch role to...", and "Return to my normal role". A large grey arrow points from the word "Grades" to the "Grades" link in the administration sidebar. The main content area is titled "Web Development" and contains "Assignment Drop Boxes". It lists "Assignment 1" and "Assignment 2", each with a "Submit" button. At the bottom, there is a "PREVIOUS SECTION" link with a blue arrow pointing left, labeled "Programming Fundamentals".

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Assignment 1

Submit

Assignment 2

Submit

PREVIOUS SECTION

Programming Fundamentals