QGIS ADVANCED

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Consultant

25/11/2019

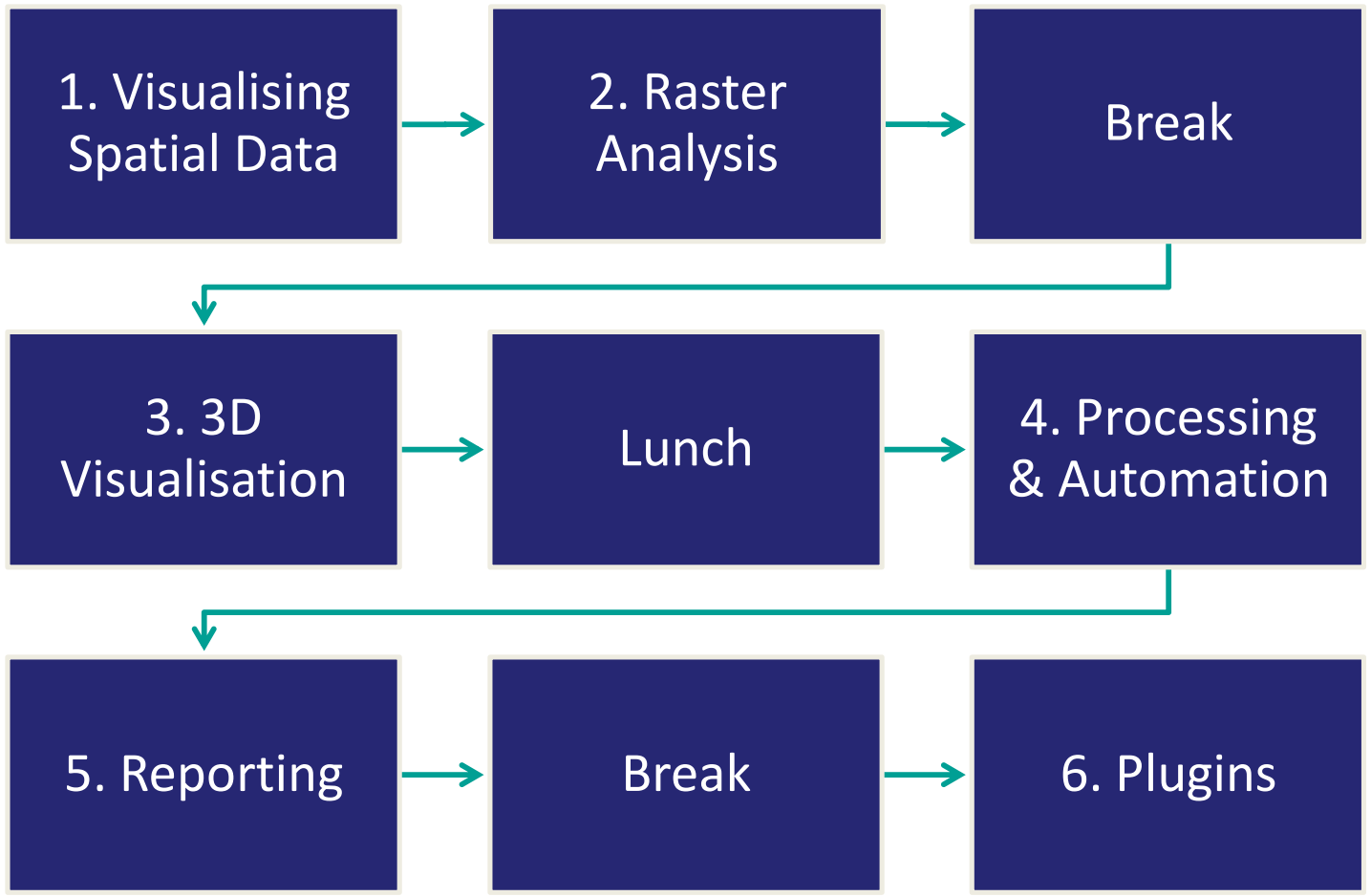
THINKWHERE – WHO ARE WE?

- Based in Stirling, 18 staff
- Independent, leading provider of innovative GIS solutions
- Dynamic team of open source experts
- Delivering a wide range of open source GIS training courses.
- First class reputation for service quality and delivery

WELCOME

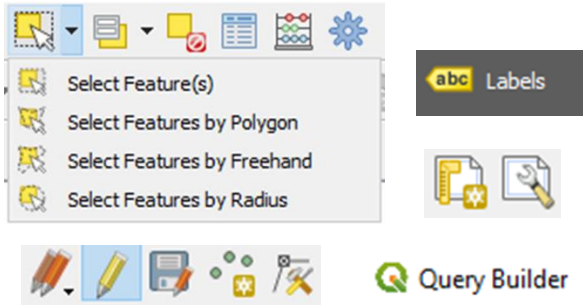
- Fire Alarms
- Logistics of the Day
- Breaks
- Questions

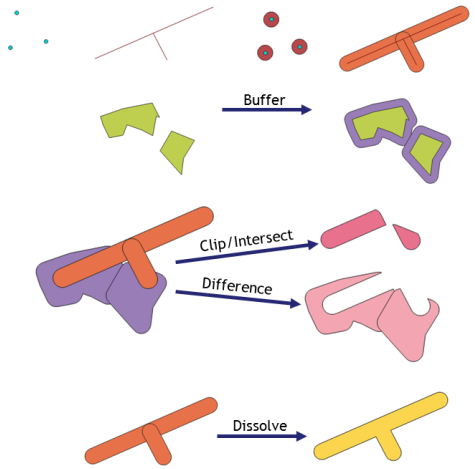
AGENDA

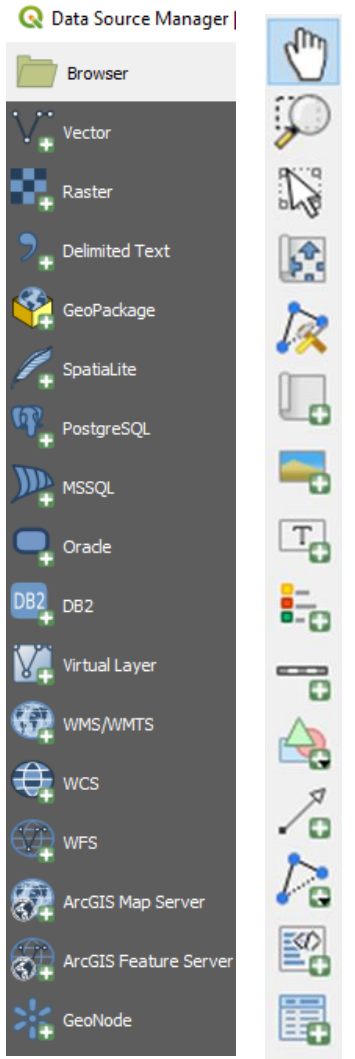

1. Visualising Spatial Data
2. Raster Analysis
Break
3. 3D Visualisation
Lunch
4. Processing & Automation
5. Reporting
Break
6. Plugins

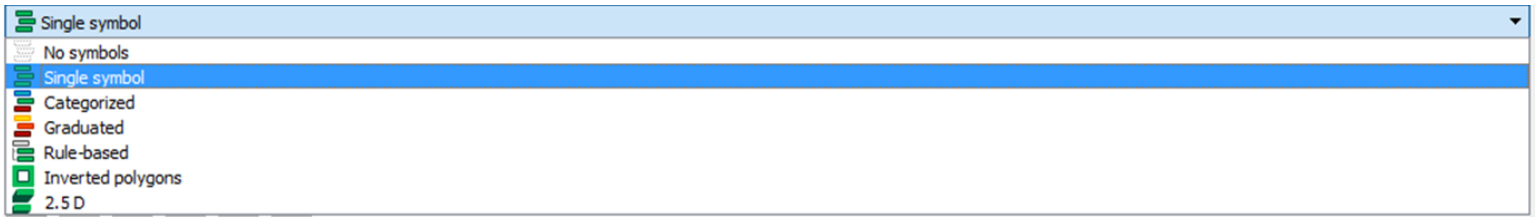
EXPERIENCE

- Querying Data
- Styling Data
- Creating and Editing Features
- Geoprocessing
- Basic Spatial Analysis
- Map Production



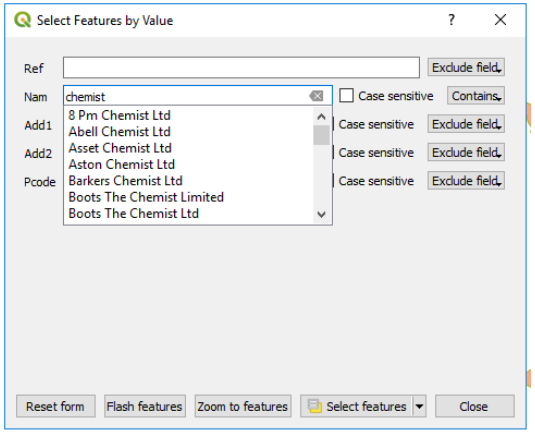


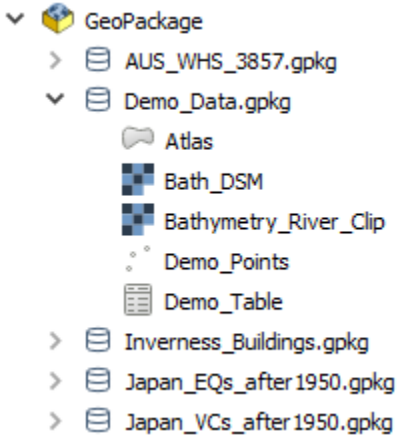


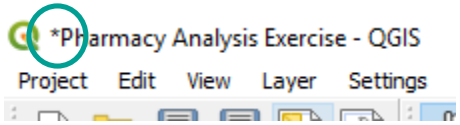


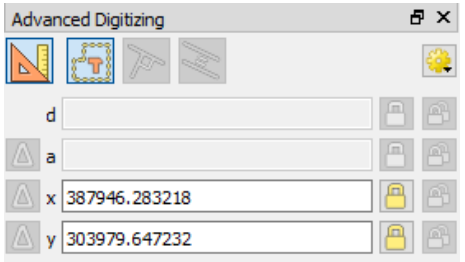
WHAT'S NEW IN QGIS 3

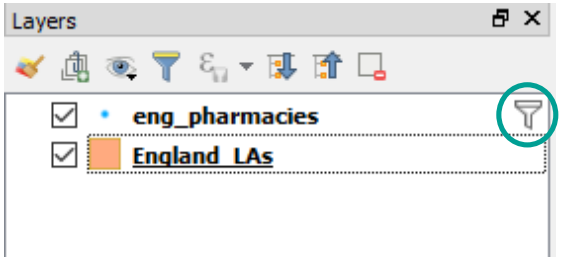
- New 3D Visualisation Capabilities
- Improved Geoprocessing
- New Data Source Manager
- Improved Visualisation Tools
- Improved user convenience

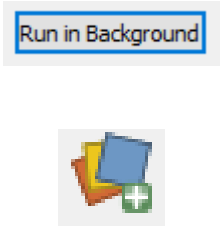












MODULE 1 OBJECTIVES

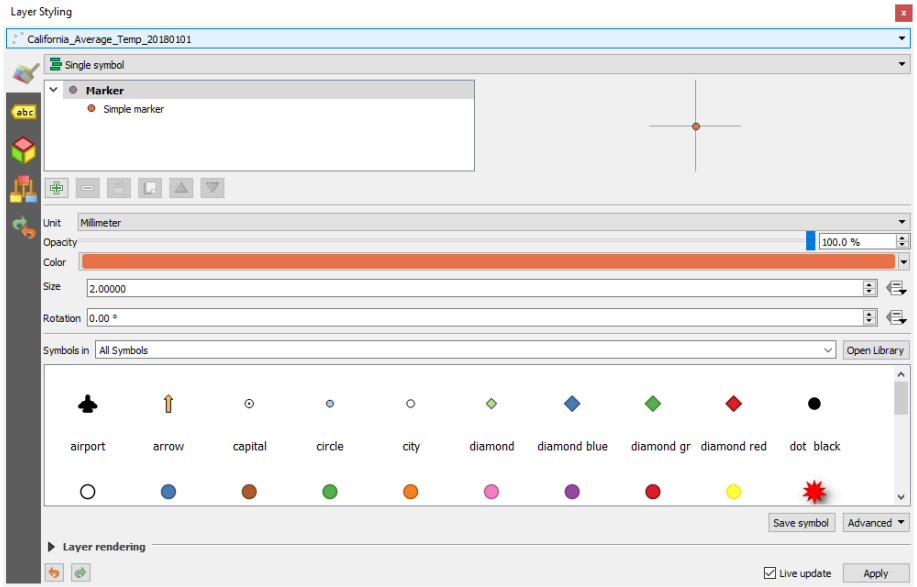
AIM: Learn advanced cartographic styling techniques to produce effective spatial data visualisation outputs

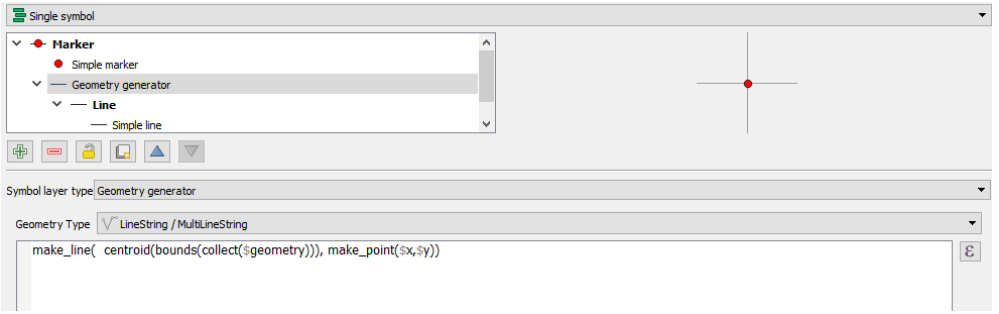
By the end of this section you should be able to…

- Apply a variety of draw effects to vector layers
- Use blending modes to style terrain and basemaps
- Extend labels by using expressions
- Create geometry generator style layers

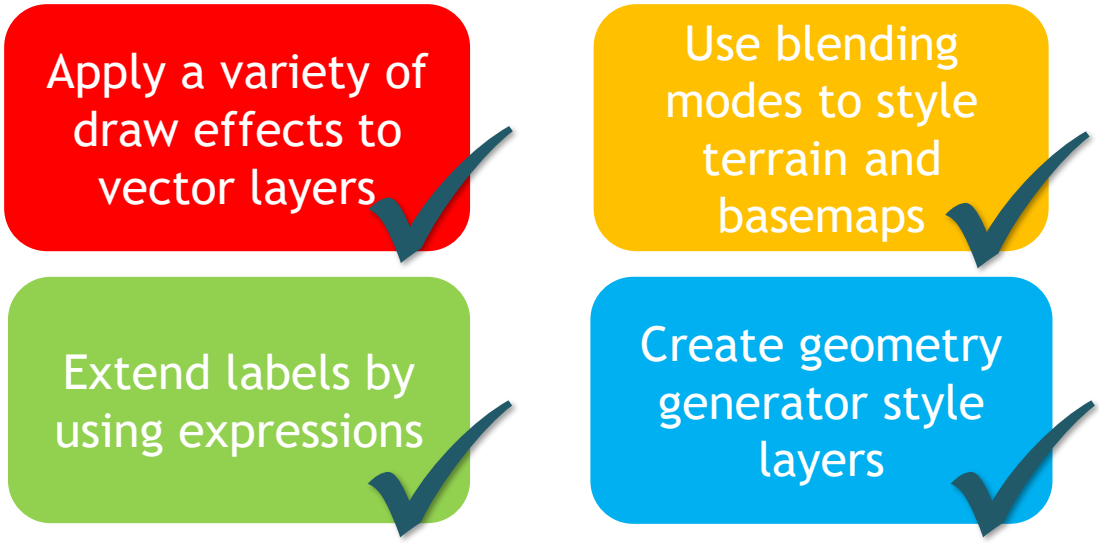
MODULE 1 – VISUALISING SPATIAL DATA

- Demonstration
  - *Styling*
- Exercise
- Demonstration
  - *Geometry Generators*
- Exercise





MODULE 1 REVIEW



MODULE 2 OBJECTIVES

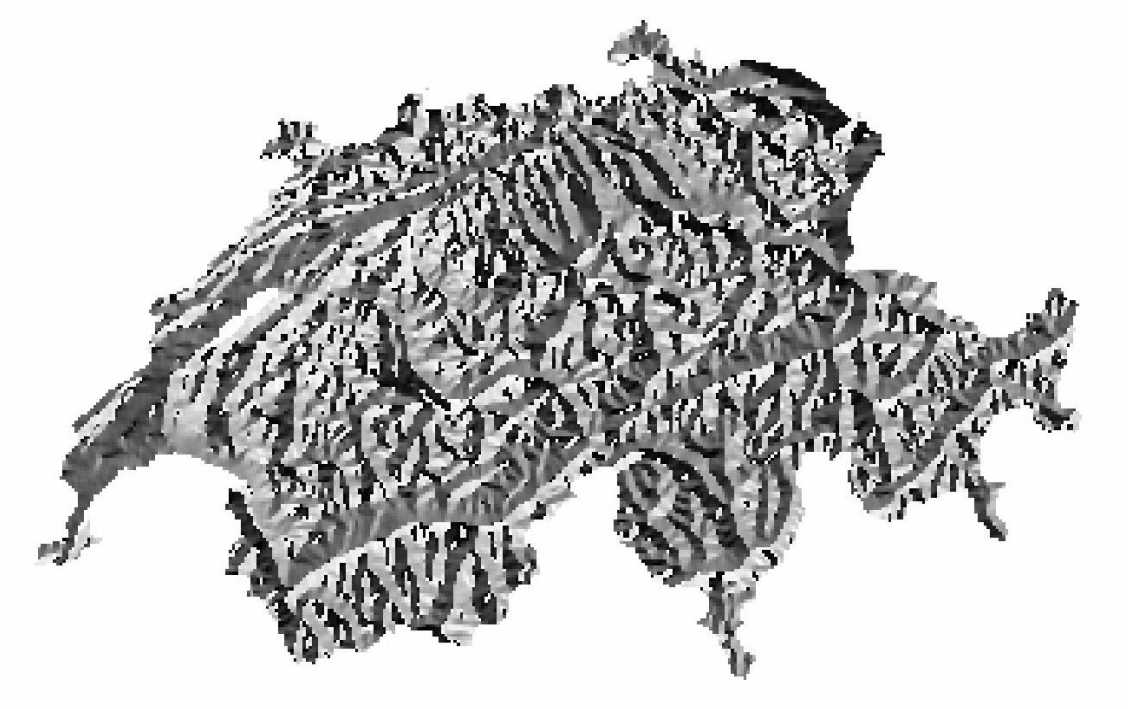
AIM: Learn how to create and analyse raster surfaces using vector data and terrain models

By the end of this section you should be able to…

- Interpolate point attributes to create a raster surface
- Explore terrain analysis tools
- Analyse suitable sites using multi-criteria approach
- Perform raster processing to filter and convert raster surfaces

MODULE 2 – RASTER ANALYSIS

- Demonstration
  - *Interpolation*
- Exercise
- Demonstration
  - *Terrain Analysis*
- Exercise



MODULE 2 REVIEW

- Interpolate point attributes to create a raster surface
- Explore terrain analysis tools
- Analyse suitable sites using multi-criteria approach
- Perform raster processing to filter and convert raster surface

MODULE 3 OBJECTIVES

AIM: Learn how to visualise spatial data more effectively by using 3D map views

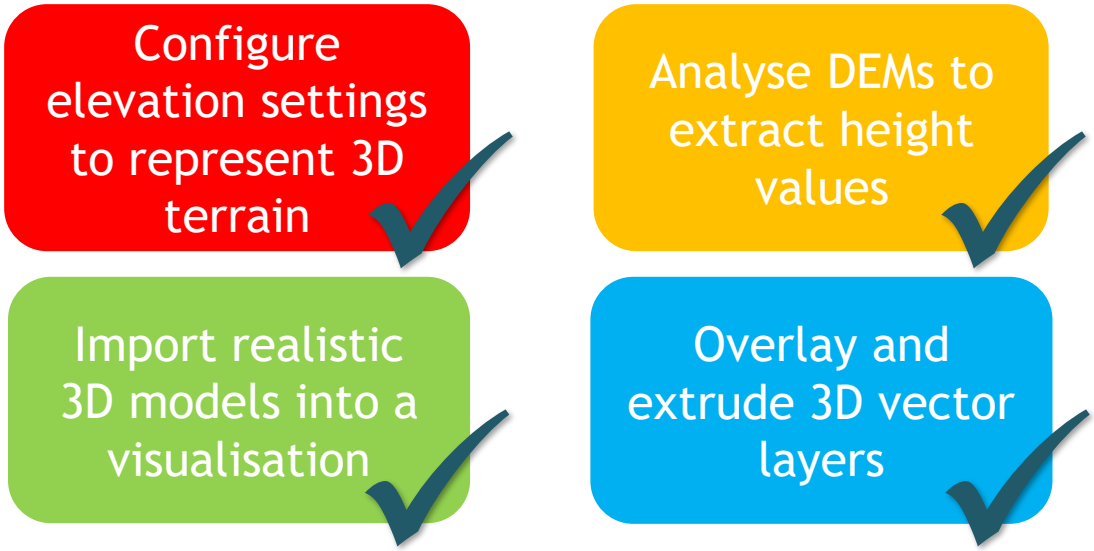
By the end of this section you should be able to…

- Configure elevation settings to represent 3D terrain
- Analyse DEMs to extract height values
- Import realistic 3D models into a visualisation
- Overlay and extrude 3D vector layers

MODULE 3 – 3D VISUALISATION

- Demo
  - Multiple map views
  - 3D views
  - 3D styling and rendering
- Exercise

MODULE 3 REVIEW



MODULE 4 OBJECTIVES

AIM: Increase productivity by learning how to automate workflows in QGIS

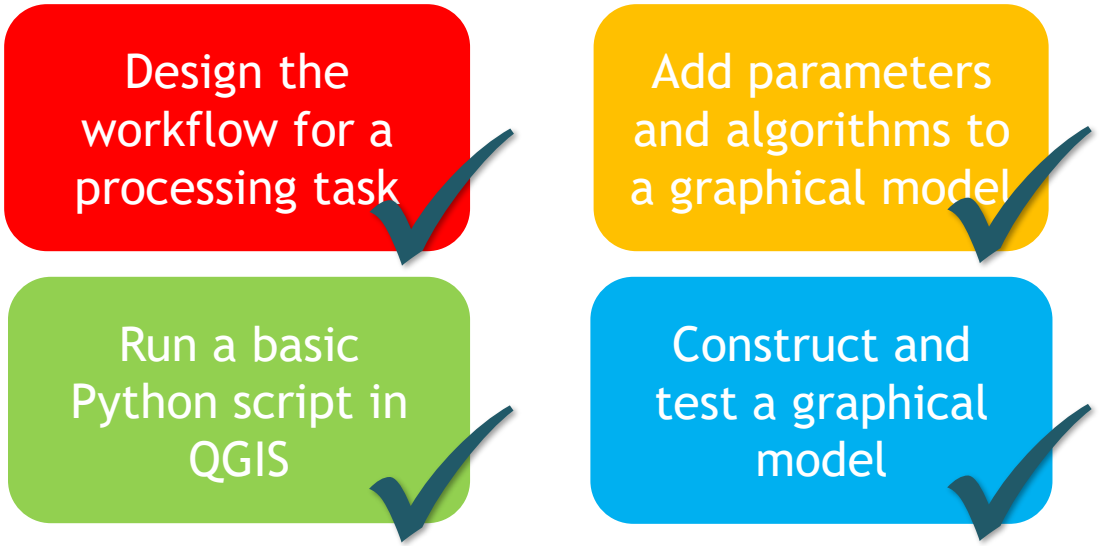
By the end of this section you should be able to…

- Design the workflow for a processing task
- Add parameters and algorithms to a graphical model
- Run a basic Python script in QGIS
- Construct and test a graphical model

MODULE 4 – PROCESSING & AUTOMATION

- Demo
  - Geoprocessing
  - Batch processing
  - Graphical processing modeller
- Exercise
  - Multi-ring buffer
  - Creating a new model
  - Python Console

MODULE 4 REVIEW



MODULE 5 OBJECTIVES

AIM: Learn to automate the production of complex map books using QGIS reporting

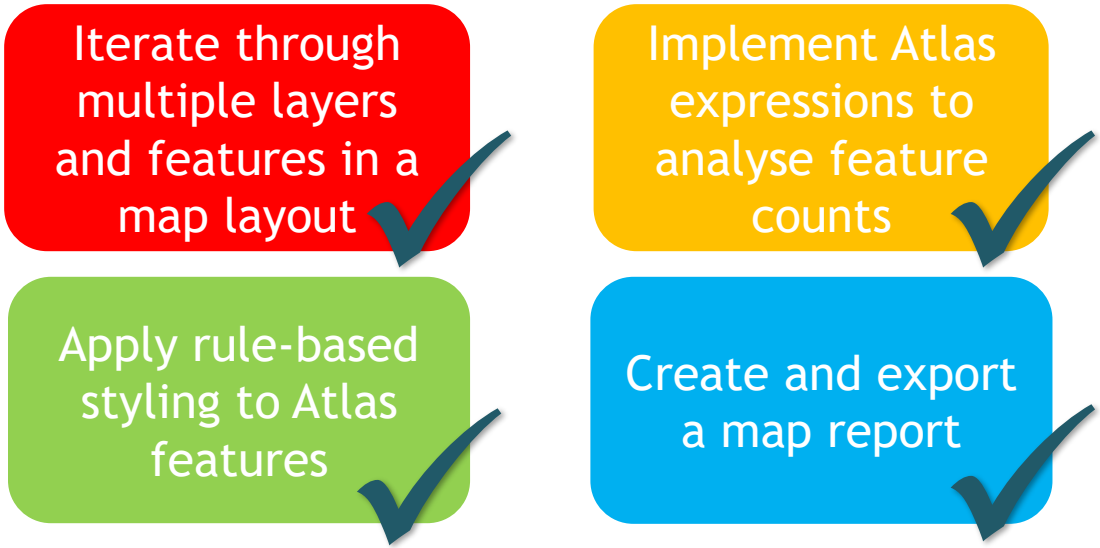
By the end of this section you should be able to…

- Iterate through multiple layers and features in a map layout
- Implement Atlas expressions to analyse feature counts
- Apply rule-based styling to Atlas features
- Create and export a map report

MODULE 5 – REPORTING

- Demo
  - Atlas
  - Reporting
- Exercise
  - Transport report
  - Rule-based styling
  - Dynamic expressions

MODULE 5 REVIEW



MODULE 6 OBJECTIVES

AIM: Learn how to present spatial data more effectively by using innovative QGIS plugins

By the end of this section you should be able to…

- Create spatio-temporal animations using TimeManager
- Export a web map from a QGIS project
- Produce a variety charts linked to vector layers

MODULE 6 – PLUGINS

- Demo
  - TimeManager
  - Qgis2web
  - Data Plotly
- Exercise
  - TimeManager
  - Qgis2web
  - Data Plotly

MODULE 6 REVIEW

Create spatio-temporal animations using TimeManager

Export a web map from a QGIS project

Produce a variety charts linked to vector layers

SUMMARY

- Visualising Spatial Data
- Raster Analysis
- 3D Visualisation
- Graphical Modeller
- Reporting
- Plugins

FURTHER TRAINING

- Python for QGIS
- PostGIS User
- PostGIS Administrator
- Geoserver
- OpenLayers

- 30 days free support - support@thinkWhere.com

thinkWhere

thinkWhere uses leading edge cloud, Open Source and GIS technologies, to develop innovative software and solutions, backed by a wide range of GIS implementation, consultancy, support and training services.

QUESTIONS?

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