Week 1

Day 1

1) All resources can be found in OneDrive, through this link

2) Slide presentation: Advanced Python - 1A - Lambda Functions

3) Advanced Python - Module 1 Exercises
- Module 1A: Lambda Functions

4) Slide presentation: Advanced Python - 1B - Handling Exceptions

5) Advanced Python - Module 1 Exercises:
- Module 1B: Handling Exceptions

6) Project given out; Working on Questions 1, 6 & 11

Day 2

1) Slide presentation: Advanced Python - 2A - Python Classes

2) Advanced Python - Module 2 Exercises:
- Module 2A: Classes and Objects

3) Project: Working on Questions 2 & 7

Day 3

1) Slide presentation: Advanced Python - 2B - Class Inheritance

2) Advanced Python - Module 2 Exercises:
- Module 2B: Inheritance

3) Project: Working on Question 12

Day 4

1) Slide presentation: Advanced Python - 3A - NumPy

2) Advanced Python - Module 3 Exercises:

- Module 3A: NumPy

3) Project: Working on Questions 3, 8 & 13

Day 5

1) Catching up with outstanding exercises & project questions

Week 2

Day 1

1) Slide presentation: Advanced Python - 3B - Pandas
   a) Introduction; Series, DataFrame, slicing, functions: apply(), assign(), sort_values() (slides 1-77)
   b) Advanced Python - Module 3 Exercises:
      Work on Exercises 1-8 of Module 3B: Pandas
   c) Filtering, logic operators, aggregate functions, conversion functions, groupby(), reset_index(), concat(), merge() & join(); data cleaning; plotting (slides 78-115)
   d) Advanced Python - Module 3 Exercises
      Work on Exercises 9-13 of Module 3B: Pandas

2) Project: Working on Questions 4, 9 & 14

Day 2

1) Slide presentation: Advanced Python - 4A - Data Visualisation - Matplotlib

2) Advanced Python - Module 4 Exercises:
   - Module 4A: Matplotlib

3) Project: Working on Question involving Matplotlib (one of the questions 5, 10 & 15)

Day 3

1) Slide presentation: Advanced Python - 4B - Data Visualisation - Seaborn
   a) Introduction; Distribution & Categorical Plots (slides 1-55)
   b) Advanced Python - Module 4 Exercises:
      Work on Exercises 1-11of Module 4B: Seaborn

c) Relational & Joint Plots; Changing Plot Style (slides 56-83)
d) Advanced Python - Module 4 Exercises:
Work on Exercises 12-14 of Module 4B: Seaborn

2) Project: Working on Questions involving Seaborn (two of the questions 5, 10 & 15)

Day 4

1) Slide presentation: Advanced Python - 5 - SQLite

2) Revision & catching up with exercises

3) Project: Working on all questions

Day 5

1) Project: Working on all questions

2) Project submission – deadline 1pm