

Python_exam_imp.txt

how to catch exceptions using try and except?

- <https://www.programiz.com/python-programming/exception-handling>
- <https://docs.python.org/3/tutorial/errors.html>
- https://www.w3schools.com/python/python_try_except.asp
- <https://www.geeksforgeeks.org/python-try-except/>

What are Boolean expression?conditional execution?

- <https://www.khanacademy.org/computing/ap-computer-science-principles/programming-101/boolean-logic/a/conditionals-with-if-else-and-booleans>
- <https://www.gnu.org/software/sather/docs-1.2/tutorial/conditional.html>
- <http://www.py4inf.com/html-009/book004.html>
- <http://computing.southern.edu/halterman/OOP/chapter5.pdf>

Alternative execution

- <https://www.py4e.com/html3/03-conditional>
- <https://runestone.academy/ns/books/published/py4e-int/conditional/altExecution.html>
- <https://runestone.academy/ns/books/published/thinkcpp/Chapter4/AlternativeExecution.html>
- https://eng.libretexts.org/Courses/Delta_College/Introduction_to_Programming_Concepts_-_Python/03%3A_Conditional_Execution/3.04%3A_Alternative_Execution

explain chained conditionals and nested conditionals

- <https://stackoverflow.com/questions/72480149/in-python-can-a-conditional-statement-be-called-both-nested-and-chained>
- <https://gist.github.com/misterhmkss/bac4d3c3bb9b7d97e8a7ee4fe424f44>
- <https://www.techwithtim.net/tutorials/python-programming/beginner-python-tutorials/chained-conditionals-nested-statements/>
- <https://www.quora.com/Python-programming-language-What-is-the-difference-between-chained-conditionals-and-nested-conditionals>

regular expressions and character matchin in Python

- <https://docs.python.org/3/library/re.html>
- <https://docs.python.org/3/howto/regex.html>
- <https://www.geeksforgeeks.org/pattern-matching-python-regex/>
- https://www.tutorialspoint.com/python/python_reg_expressions.htm

Character matching in regular expressions in Python , Extracting data using regular expressions, Combining searching and extracting, Escape character.

- <https://www.py4e.com/html3/11-regex>
- <https://runestone.academy/ns/books/published/py4e-int/regex/combiningsearchingandextracting.html>
- <https://docs.python.org/3/howto/regex.html>
- <https://docs.python.org/3/library/re.html>

Classes as types in Python

- https://files.realpython.com/media/class-chain.5cb031a299fe.png?sa=X&ved=2ahUKEwi9rMOE-L78AhUV-TgGHUH9DNIQ_B16BAglEAI
- <https://realpython.com/python-metaclasses/>
- <https://docs.python.org/3/tutorial/classes.html>
- <https://www.geeksforgeeks.org/python-classes-and-objects/>

Object lifecycle in Python

- <https://technobeans.com/2012/01/17/object-lifetime-in-python/>
- <https://betterprogramming.pub/the-life-cycle-of-python-instance-objects-4a719fb4e925>
- <https://runestone.academy/ns/books/published/py4e-int/objects/objectlifecycle.html>
- <https://towardsdatascience.com/all-about-pythonic-class-the-life-cycle-5d2deae1ad8d>

Multiple instances, Inheritance in python

- https://media.geeksforgeeks.org/wp-content/uploads/20191222084630/multipleinh.png?sa=X&ved=2ahUKEwjfg7il-L78AhWy7zgGHf5C8oQ_B16BAglEAI
- <https://www.geeksforgeeks.org/multiple-inheritance-in-python/>
- <https://www.programiz.com/python-programming/multiple-inheritance>
- <https://www.programiz.com/python-programming/multiple-inheritance#example1>

Creating GUI in Python with Tkinter:

- https://www.tutorialspoint.com/python/python_gui_programming.htm
- <https://www.geeksforgeeks.org/create-first-gui-application-using-python-tkinter/>
- <https://realpython.com/python-gui-tkinter/>
- <https://www.tutorialsteacher.com/python/create-gui-using-tkinter-python>

Creating GUI Form, Using Databases and SQL

- <https://budibase.com/blog/tutorials/sql-gui/>
- <https://budibase.com/blog/tutorials/database-gui/>
- <https://www.dronahq.com/sql-gui/>
- <https://www.youtube.com/watch?v=AK1J8xF4fuk>

Tkinter Widgets - Button, Canvas, Checkbutton, Entry, Frame, Label, Listbox, Menubutton, Menu, Message, Radiobutton, Scale, Scrollbar, Text, Toplevel, Spinbox, Paned Window, LabelFrame, tkMessageBox. Standard attributes and Geometry Management.

- https://www.tutorialspoint.com/python3/python_gui_programming.htm
- <https://anzeljj.github.io/rin2/book2/2405/docs/tkinter/index.html>
- <https://www.studytonight.com/tkinter/python-tkinter-widgets>
- <https://pythontrends.files.wordpress.com/2019/08/introduction-to-tkinter-for-gui-application-1.pdf>

What is a database?, Database concepts, Database Browser for SQLite, Creating a database table

- <https://datacarpentry.org/sql-socialsci/02-db-browser/index.html>
- <https://www.futurelearn.com/info/courses/data-analytics-for-business-manipulating-and-interpreting-your-data/0/steps/236437>
- [https://eng.libretexts.org/Bookshelves/Computer_Science/Programming_Languages/Book%3A_Python_for_Everybody_\(Severance\)/15%3A_Using_Databases_and_SQL/15.03%3A_Database_Browser_for_SQLite](https://eng.libretexts.org/Bookshelves/Computer_Science/Programming_Languages/Book%3A_Python_for_Everybody_(Severance)/15%3A_Using_Databases_and_SQL/15.03%3A_Database_Browser_for_SQLite)
- https://www.tutorialspoint.com/android/android_sqlite_database.htm

What is Data Visualization?

- <https://www.tableau.com/learn/articles/data-visualization>
- <https://www.tableau.com/en-gb/learn/articles/data-visualization>
- <https://www.tableau.com/learn/articles/best-beautiful-data-visualization-examples>
- <https://www.tableau.com/learn/articles/what-is-big-data>

Data Visualization in Python

- https://www.simplilearn.com/free_resources_article_thumb/Data_Visualization_in_Python/Data_Visualization_in_Python_11.png?sa=X&ved=2ahUKEwjTyr-T-L78AhVN9DgGHefwDRwQ_B16BAgAEAI
- <https://www.simplilearn.com/tutorials/python-tutorial/data-visualization-in-python>
- <https://www.geeksforgeeks.org/data-visualization-with-python/>
- <https://gilberttanner.com/blog/introduction-to-data-visualization-inpython/>

Matplotlib and Seaborn

- <https://www.geeksforgeeks.org/difference-between-matplotlib-vs-seaborn/>
- <https://seaborn.pydata.org/introduction.html>
- <https://seaborn.pydata.org/>
- <https://jakevdp.github.io/PythonDataScienceHandbook/04.14-visualization-with-seaborn.html>

Line Charts

- <http://t3.gstatic.com/licensed-image?q=tbn:ANd9GcSS5Y0aDr8on4g1Xrp1aMmKAc4XMf3Gqv70jHkzjv8QIWPCxPMtre7JT2hrXMPradJQ>
- https://en.wikipedia.org/wiki/Line_chart
- <https://www.investopedia.com/terms/l/linechart.asp>
- <https://chartio.com/learn/charts/line-chart-complete-guide/>

Bar Graphs

- http://t3.gstatic.com/licensed-image?q=tbn:ANd9GcR9uVIP_4BZpw0XqS9FQrHKiKos2B-vh5P-ArDm21cG1GwWdBNUZCHI1kbfmUhiPWIEV
- https://en.wikipedia.org/wiki/Bar_chart
- <https://www.mathsisfun.com/data/bar-graphs.html>
- <https://www.splashlearn.com/math-vocabulary/geometry/bar-graph>

Histograms

- http://t3.gstatic.com/licensed-image?q=tbn:ANd9GcQucETLH3GCK0jsO5s_aGEwXP1PlXB6786sYWicxgWnos5_ZBSfIJ-mnqMO-CEMufW
- <https://en.wikipedia.org/wiki/Histogram>
- <https://www.mathsisfun.com/data/histograms.html>
- https://en.wikipedia.org/wiki/Histogram#Mathematical_definitions

Scatter Plots

- <https://byjus.com/maths/scatter-plot/>
- <https://chartio.com/learn/charts/what-is-a-scatter-plot/>
- <https://chartio.com/learn/charts/what-is-a-scatter-plot/#when-you-should-use-a-scatter-plot>
- <https://chartio.com/learn/charts/what-is-a-scatter-plot/#common-issues-when-using-scatter-plots>

Heat Maps

- https://en.wikipedia.org/wiki/Heat_map
- <https://www.hotjar.com/heatmaps/>
- <https://www.hotjar.com/heatmaps/how-to-create/>
- <https://www.hotjar.com/heatmaps/examples/>