***Note: There is a table of contents for each video located at the bottom of this email including timestamps. This should be helpful in navigating the videos.  
  
I pretty strongly recommend that you increase the playback speed of the videos. Vimeo's online video playback allows you to playback at 1.25x, 1.5x, and 2x. Additionally, the videos are downloadable and you should be able to increase the playback speed of the videos using your computer's video software.***  
  
  
﻿In this lesson of Learning Python we are going to cover the following:

1. **Introduction / Why Python?**  
   Video [https://vimeo.com/773953928](https://t.dripemail2.com/c/eyJhbGciOiJIUzI1NiJ9.eyJhdWQiOiJkZXRvdXIiLCJpc3MiOiJtb25vbGl0aCIsInN1YiI6ImRldG91cl9saW5rIiwiaWF0IjoxNzU2NTk5OTgyLCJuYmYiOjE3NTY1OTk5ODIsImFjY291bnRfaWQiOiI0MjU0NDk3IiwiZGVsaXZlcnlfaWQiOiJqNnQ2ZGF3MXRlYTI1MmpldmM3MiIsInRva2VuIjoiajZ0NmRhdzF0ZWEyNTJqZXZjNzIiLCJzZW5kX2F0IjoxNzU2NjAzNTgxLCJlbWFpbF9pZCI6NzUwNDk2MCwiZW1haWxhYmxlX3R5cGUiOiJDYW1wYWlnbiIsImVtYWlsYWJsZV9pZCI6NDc4NjE0LCJ1cmwiOiJodHRwczovL3ZpbWVvLmNvbS83NzM5NTM5Mjg_X19zPW16cG02bnEzY210engwM3RrNWRnIn0.QJPkxxzzXCSLxswIzNDP1ZiBqKuryA6QVncYJKRFfMk)  
   Length is 3 minutes
2. **How to watch the videos (Vimeo widgets that might help)**  
   Video [https://vimeo.com/811026150](https://t.dripemail2.com/c/eyJhbGciOiJIUzI1NiJ9.eyJhdWQiOiJkZXRvdXIiLCJpc3MiOiJtb25vbGl0aCIsInN1YiI6ImRldG91cl9saW5rIiwiaWF0IjoxNzU2NTk5OTgyLCJuYmYiOjE3NTY1OTk5ODIsImFjY291bnRfaWQiOiI0MjU0NDk3IiwiZGVsaXZlcnlfaWQiOiJqNnQ2ZGF3MXRlYTI1MmpldmM3MiIsInRva2VuIjoiajZ0NmRhdzF0ZWEyNTJqZXZjNzIiLCJzZW5kX2F0IjoxNzU2NjAzNTgxLCJlbWFpbF9pZCI6NzUwNDk2MCwiZW1haWxhYmxlX3R5cGUiOiJDYW1wYWlnbiIsImVtYWlsYWJsZV9pZCI6NDc4NjE0LCJ1cmwiOiJodHRwczovL3ZpbWVvLmNvbS84MTEwMjYxNTA_X19zPW16cG02bnEzY210engwM3RrNWRnIn0.otnfeOK5FNuIbyinKnx2FVal8ZOg8_AhPltoPVzYfyI)  
   Length is 1 minute
3. **Python Environment - Virtual Environment Setup**  
   Video [https://vimeo.com/775992471](https://t.dripemail2.com/c/eyJhbGciOiJIUzI1NiJ9.eyJhdWQiOiJkZXRvdXIiLCJpc3MiOiJtb25vbGl0aCIsInN1YiI6ImRldG91cl9saW5rIiwiaWF0IjoxNzU2NTk5OTgyLCJuYmYiOjE3NTY1OTk5ODIsImFjY291bnRfaWQiOiI0MjU0NDk3IiwiZGVsaXZlcnlfaWQiOiJqNnQ2ZGF3MXRlYTI1MmpldmM3MiIsInRva2VuIjoiajZ0NmRhdzF0ZWEyNTJqZXZjNzIiLCJzZW5kX2F0IjoxNzU2NjAzNTgxLCJlbWFpbF9pZCI6NzUwNDk2MCwiZW1haWxhYmxlX3R5cGUiOiJDYW1wYWlnbiIsImVtYWlsYWJsZV9pZCI6NDc4NjE0LCJ1cmwiOiJodHRwczovL3ZpbWVvLmNvbS83NzU5OTI0NzE_X19zPW16cG02bnEzY210engwM3RrNWRnIn0.xCpnsAgaz7fYUYTyHnBKxT5HgrdWai_aUHzJ8TL1id8)  
   Length is 4 minutes
4. **Python Environment - PIP Dependencies**  
   Video [https://vimeo.com/775994971](https://t.dripemail2.com/c/eyJhbGciOiJIUzI1NiJ9.eyJhdWQiOiJkZXRvdXIiLCJpc3MiOiJtb25vbGl0aCIsInN1YiI6ImRldG91cl9saW5rIiwiaWF0IjoxNzU2NTk5OTgyLCJuYmYiOjE3NTY1OTk5ODIsImFjY291bnRfaWQiOiI0MjU0NDk3IiwiZGVsaXZlcnlfaWQiOiJqNnQ2ZGF3MXRlYTI1MmpldmM3MiIsInRva2VuIjoiajZ0NmRhdzF0ZWEyNTJqZXZjNzIiLCJzZW5kX2F0IjoxNzU2NjAzNTgxLCJlbWFpbF9pZCI6NzUwNDk2MCwiZW1haWxhYmxlX3R5cGUiOiJDYW1wYWlnbiIsImVtYWlsYWJsZV9pZCI6NDc4NjE0LCJ1cmwiOiJodHRwczovL3ZpbWVvLmNvbS83NzU5OTQ5NzE_X19zPW16cG02bnEzY210engwM3RrNWRnIn0.eX4Q0ntdHPSZp-Zh2WxDf42uzX6g3aVO5Lb0U9HqKJA)  
   Length is 2 minutes
5. **Python Environment - Disable IPython AutoComplete**  
   Video [https://vimeo.com/775996916](https://t.dripemail2.com/c/eyJhbGciOiJIUzI1NiJ9.eyJhdWQiOiJkZXRvdXIiLCJpc3MiOiJtb25vbGl0aCIsInN1YiI6ImRldG91cl9saW5rIiwiaWF0IjoxNzU2NTk5OTgyLCJuYmYiOjE3NTY1OTk5ODIsImFjY291bnRfaWQiOiI0MjU0NDk3IiwiZGVsaXZlcnlfaWQiOiJqNnQ2ZGF3MXRlYTI1MmpldmM3MiIsInRva2VuIjoiajZ0NmRhdzF0ZWEyNTJqZXZjNzIiLCJzZW5kX2F0IjoxNzU2NjAzNTgxLCJlbWFpbF9pZCI6NzUwNDk2MCwiZW1haWxhYmxlX3R5cGUiOiJDYW1wYWlnbiIsImVtYWlsYWJsZV9pZCI6NDc4NjE0LCJ1cmwiOiJodHRwczovL3ZpbWVvLmNvbS83NzU5OTY5MTY_X19zPW16cG02bnEzY210engwM3RrNWRnIn0.62_hp_mgbvxFY4w6VJ1Oze-68EwYGTKmE4sIXe4LQm0)  
   Length is 2 minutes
6. **REPL and Assignment**  
   Video[https://vimeo.com/776018583](https://t.dripemail2.com/c/eyJhbGciOiJIUzI1NiJ9.eyJhdWQiOiJkZXRvdXIiLCJpc3MiOiJtb25vbGl0aCIsInN1YiI6ImRldG91cl9saW5rIiwiaWF0IjoxNzU2NTk5OTgyLCJuYmYiOjE3NTY1OTk5ODIsImFjY291bnRfaWQiOiI0MjU0NDk3IiwiZGVsaXZlcnlfaWQiOiJqNnQ2ZGF3MXRlYTI1MmpldmM3MiIsInRva2VuIjoiajZ0NmRhdzF0ZWEyNTJqZXZjNzIiLCJzZW5kX2F0IjoxNzU2NjAzNTgxLCJlbWFpbF9pZCI6NzUwNDk2MCwiZW1haWxhYmxlX3R5cGUiOiJDYW1wYWlnbiIsImVtYWlsYWJsZV9pZCI6NDc4NjE0LCJ1cmwiOiJodHRwczovL3ZpbWVvLmNvbS83NzYwMTg1ODM_X19zPW16cG02bnEzY210engwM3RrNWRnIn0.mG7Jyfrx2wS6FoY3twSdWHowePs0K59-f3OJl20a4u0)  
   Length is 5 minutes
7. **Python Naming Conventions**  
   Video [https://vimeo.com/776020759](https://t.dripemail2.com/c/eyJhbGciOiJIUzI1NiJ9.eyJhdWQiOiJkZXRvdXIiLCJpc3MiOiJtb25vbGl0aCIsInN1YiI6ImRldG91cl9saW5rIiwiaWF0IjoxNzU2NTk5OTgyLCJuYmYiOjE3NTY1OTk5ODIsImFjY291bnRfaWQiOiI0MjU0NDk3IiwiZGVsaXZlcnlfaWQiOiJqNnQ2ZGF3MXRlYTI1MmpldmM3MiIsInRva2VuIjoiajZ0NmRhdzF0ZWEyNTJqZXZjNzIiLCJzZW5kX2F0IjoxNzU2NjAzNTgxLCJlbWFpbF9pZCI6NzUwNDk2MCwiZW1haWxhYmxlX3R5cGUiOiJDYW1wYWlnbiIsImVtYWlsYWJsZV9pZCI6NDc4NjE0LCJ1cmwiOiJodHRwczovL3ZpbWVvLmNvbS83NzYwMjA3NTk_X19zPW16cG02bnEzY210engwM3RrNWRnIn0.fQFSXqKQY3r8yCFyEUTXpDd0lqSwjA5GynIASr33HaQ)  
   Length is 1 minute
8. **Print and Input**  
   Video [https://vimeo.com/776021731](https://t.dripemail2.com/c/eyJhbGciOiJIUzI1NiJ9.eyJhdWQiOiJkZXRvdXIiLCJpc3MiOiJtb25vbGl0aCIsInN1YiI6ImRldG91cl9saW5rIiwiaWF0IjoxNzU2NTk5OTgyLCJuYmYiOjE3NTY1OTk5ODIsImFjY291bnRfaWQiOiI0MjU0NDk3IiwiZGVsaXZlcnlfaWQiOiJqNnQ2ZGF3MXRlYTI1MmpldmM3MiIsInRva2VuIjoiajZ0NmRhdzF0ZWEyNTJqZXZjNzIiLCJzZW5kX2F0IjoxNzU2NjAzNTgxLCJlbWFpbF9pZCI6NzUwNDk2MCwiZW1haWxhYmxlX3R5cGUiOiJDYW1wYWlnbiIsImVtYWlsYWJsZV9pZCI6NDc4NjE0LCJ1cmwiOiJodHRwczovL3ZpbWVvLmNvbS83NzYwMjE3MzE_X19zPW16cG02bnEzY210engwM3RrNWRnIn0.oldRK81LVPeiaYl39384NnIbRaLFOfBS2CbIOgnKILQ)  
   Length is 1 minute
9. **Python Characteristics​**  
   Video [https://vimeo.com/775988907](https://t.dripemail2.com/c/eyJhbGciOiJIUzI1NiJ9.eyJhdWQiOiJkZXRvdXIiLCJpc3MiOiJtb25vbGl0aCIsInN1YiI6ImRldG91cl9saW5rIiwiaWF0IjoxNzU2NTk5OTgyLCJuYmYiOjE3NTY1OTk5ODIsImFjY291bnRfaWQiOiI0MjU0NDk3IiwiZGVsaXZlcnlfaWQiOiJqNnQ2ZGF3MXRlYTI1MmpldmM3MiIsInRva2VuIjoiajZ0NmRhdzF0ZWEyNTJqZXZjNzIiLCJzZW5kX2F0IjoxNzU2NjAzNTgxLCJlbWFpbF9pZCI6NzUwNDk2MCwiZW1haWxhYmxlX3R5cGUiOiJDYW1wYWlnbiIsImVtYWlsYWJsZV9pZCI6NDc4NjE0LCJ1cmwiOiJodHRwczovL3ZpbWVvLmNvbS83NzU5ODg5MDc_X19zPW16cG02bnEzY210engwM3RrNWRnIn0.NRAgPPfoiScH3T4HDNPsIiyLspp7Nbu9vRjBk_PdavA)  
   Length is 2 minutes
10. **Executing your first Python script**  
    Video [https://vimeo.com/795409640](https://t.dripemail2.com/c/eyJhbGciOiJIUzI1NiJ9.eyJhdWQiOiJkZXRvdXIiLCJpc3MiOiJtb25vbGl0aCIsInN1YiI6ImRldG91cl9saW5rIiwiaWF0IjoxNzU2NTk5OTgyLCJuYmYiOjE3NTY1OTk5ODIsImFjY291bnRfaWQiOiI0MjU0NDk3IiwiZGVsaXZlcnlfaWQiOiJqNnQ2ZGF3MXRlYTI1MmpldmM3MiIsInRva2VuIjoiajZ0NmRhdzF0ZWEyNTJqZXZjNzIiLCJzZW5kX2F0IjoxNzU2NjAzNTgxLCJlbWFpbF9pZCI6NzUwNDk2MCwiZW1haWxhYmxlX3R5cGUiOiJDYW1wYWlnbiIsImVtYWlsYWJsZV9pZCI6NDc4NjE0LCJ1cmwiOiJodHRwczovL3ZpbWVvLmNvbS83OTU0MDk2NDA_X19zPW16cG02bnEzY210engwM3RrNWRnIn0.jQ4B4DIKQxAHNmJh0t0lD0PKvNvJ8F4eAHq_0YBdGN4)  
    Length is 2 minutes
11. **Comments, Dir, and Help**  
    Video [https://vimeo.com/795413664](https://t.dripemail2.com/c/eyJhbGciOiJIUzI1NiJ9.eyJhdWQiOiJkZXRvdXIiLCJpc3MiOiJtb25vbGl0aCIsInN1YiI6ImRldG91cl9saW5rIiwiaWF0IjoxNzU2NTk5OTgyLCJuYmYiOjE3NTY1OTk5ODIsImFjY291bnRfaWQiOiI0MjU0NDk3IiwiZGVsaXZlcnlfaWQiOiJqNnQ2ZGF3MXRlYTI1MmpldmM3MiIsInRva2VuIjoiajZ0NmRhdzF0ZWEyNTJqZXZjNzIiLCJzZW5kX2F0IjoxNzU2NjAzNTgxLCJlbWFpbF9pZCI6NzUwNDk2MCwiZW1haWxhYmxlX3R5cGUiOiJDYW1wYWlnbiIsImVtYWlsYWJsZV9pZCI6NDc4NjE0LCJ1cmwiOiJodHRwczovL3ZpbWVvLmNvbS83OTU0MTM2NjQ_X19zPW16cG02bnEzY210engwM3RrNWRnIn0.Tmu8BXlyHYCFowQMhN2Cke8CogrZ_GMCUfcwSEkdPb4)  
    Length is 4 minutes
12. **String Basics**  
    Video [https://vimeo.com/795422456](https://t.dripemail2.com/c/eyJhbGciOiJIUzI1NiJ9.eyJhdWQiOiJkZXRvdXIiLCJpc3MiOiJtb25vbGl0aCIsInN1YiI6ImRldG91cl9saW5rIiwiaWF0IjoxNzU2NTk5OTgyLCJuYmYiOjE3NTY1OTk5ODIsImFjY291bnRfaWQiOiI0MjU0NDk3IiwiZGVsaXZlcnlfaWQiOiJqNnQ2ZGF3MXRlYTI1MmpldmM3MiIsInRva2VuIjoiajZ0NmRhdzF0ZWEyNTJqZXZjNzIiLCJzZW5kX2F0IjoxNzU2NjAzNTgxLCJlbWFpbF9pZCI6NzUwNDk2MCwiZW1haWxhYmxlX3R5cGUiOiJDYW1wYWlnbiIsImVtYWlsYWJsZV9pZCI6NDc4NjE0LCJ1cmwiOiJodHRwczovL3ZpbWVvLmNvbS83OTU0MjI0NTY_X19zPW16cG02bnEzY210engwM3RrNWRnIn0.qi-486OfLn-ggh_b1gqF_D0SVGAA4He0qtMLmLvS3N0)  
    Length is 2 minutes
13. **String Methods**  
    Video [https://vimeo.com/795427518](https://t.dripemail2.com/c/eyJhbGciOiJIUzI1NiJ9.eyJhdWQiOiJkZXRvdXIiLCJpc3MiOiJtb25vbGl0aCIsInN1YiI6ImRldG91cl9saW5rIiwiaWF0IjoxNzU2NTk5OTgyLCJuYmYiOjE3NTY1OTk5ODIsImFjY291bnRfaWQiOiI0MjU0NDk3IiwiZGVsaXZlcnlfaWQiOiJqNnQ2ZGF3MXRlYTI1MmpldmM3MiIsInRva2VuIjoiajZ0NmRhdzF0ZWEyNTJqZXZjNzIiLCJzZW5kX2F0IjoxNzU2NjAzNTgxLCJlbWFpbF9pZCI6NzUwNDk2MCwiZW1haWxhYmxlX3R5cGUiOiJDYW1wYWlnbiIsImVtYWlsYWJsZV9pZCI6NDc4NjE0LCJ1cmwiOiJodHRwczovL3ZpbWVvLmNvbS83OTU0Mjc1MTg_X19zPW16cG02bnEzY210engwM3RrNWRnIn0.GFvlrOcfi-dagPdjBJEt74MOo1Ynlg4OkWJXOPhf4IA)  
    Length is 8 minutes
14. **Chaining String Methods**  
    Video [https://vimeo.com/795434207](https://t.dripemail2.com/c/eyJhbGciOiJIUzI1NiJ9.eyJhdWQiOiJkZXRvdXIiLCJpc3MiOiJtb25vbGl0aCIsInN1YiI6ImRldG91cl9saW5rIiwiaWF0IjoxNzU2NTk5OTgyLCJuYmYiOjE3NTY1OTk5ODIsImFjY291bnRfaWQiOiI0MjU0NDk3IiwiZGVsaXZlcnlfaWQiOiJqNnQ2ZGF3MXRlYTI1MmpldmM3MiIsInRva2VuIjoiajZ0NmRhdzF0ZWEyNTJqZXZjNzIiLCJzZW5kX2F0IjoxNzU2NjAzNTgxLCJlbWFpbF9pZCI6NzUwNDk2MCwiZW1haWxhYmxlX3R5cGUiOiJDYW1wYWlnbiIsImVtYWlsYWJsZV9pZCI6NDc4NjE0LCJ1cmwiOiJodHRwczovL3ZpbWVvLmNvbS83OTU0MzQyMDc_X19zPW16cG02bnEzY210engwM3RrNWRnIn0.NBXLY0IZSiEw2I0imES0a-GakTWUwmq7eFSyXFOaQFc)  
    Length is 1 minute
15. **Embedding Variables in Strings**  
    Video [https://vimeo.com/795707341](https://t.dripemail2.com/c/eyJhbGciOiJIUzI1NiJ9.eyJhdWQiOiJkZXRvdXIiLCJpc3MiOiJtb25vbGl0aCIsInN1YiI6ImRldG91cl9saW5rIiwiaWF0IjoxNzU2NTk5OTgyLCJuYmYiOjE3NTY1OTk5ODIsImFjY291bnRfaWQiOiI0MjU0NDk3IiwiZGVsaXZlcnlfaWQiOiJqNnQ2ZGF3MXRlYTI1MmpldmM3MiIsInRva2VuIjoiajZ0NmRhdzF0ZWEyNTJqZXZjNzIiLCJzZW5kX2F0IjoxNzU2NjAzNTgxLCJlbWFpbF9pZCI6NzUwNDk2MCwiZW1haWxhYmxlX3R5cGUiOiJDYW1wYWlnbiIsImVtYWlsYWJsZV9pZCI6NDc4NjE0LCJ1cmwiOiJodHRwczovL3ZpbWVvLmNvbS83OTU3MDczNDE_X19zPW16cG02bnEzY210engwM3RrNWRnIn0.ixKZRR3QHqNX_7LK6zP0eLB0gbtZazEN82liFNMUpRQ)  
    Length is 3 minutes
16. **f-strings**  
    Video [https://vimeo.com/795715961](https://t.dripemail2.com/c/eyJhbGciOiJIUzI1NiJ9.eyJhdWQiOiJkZXRvdXIiLCJpc3MiOiJtb25vbGl0aCIsInN1YiI6ImRldG91cl9saW5rIiwiaWF0IjoxNzU2NTk5OTgyLCJuYmYiOjE3NTY1OTk5ODIsImFjY291bnRfaWQiOiI0MjU0NDk3IiwiZGVsaXZlcnlfaWQiOiJqNnQ2ZGF3MXRlYTI1MmpldmM3MiIsInRva2VuIjoiajZ0NmRhdzF0ZWEyNTJqZXZjNzIiLCJzZW5kX2F0IjoxNzU2NjAzNTgxLCJlbWFpbF9pZCI6NzUwNDk2MCwiZW1haWxhYmxlX3R5cGUiOiJDYW1wYWlnbiIsImVtYWlsYWJsZV9pZCI6NDc4NjE0LCJ1cmwiOiJodHRwczovL3ZpbWVvLmNvbS83OTU3MTU5NjE_X19zPW16cG02bnEzY210engwM3RrNWRnIn0.X8DrZPnKC2uxer7xvaGDbxiY8iDULrQKI2TlIjZgzXQ)  
    Length is 5 minutes
17. **Other Characteristics of Strings**  
    Video [https://vimeo.com/795725784](https://t.dripemail2.com/c/eyJhbGciOiJIUzI1NiJ9.eyJhdWQiOiJkZXRvdXIiLCJpc3MiOiJtb25vbGl0aCIsInN1YiI6ImRldG91cl9saW5rIiwiaWF0IjoxNzU2NTk5OTgyLCJuYmYiOjE3NTY1OTk5ODIsImFjY291bnRfaWQiOiI0MjU0NDk3IiwiZGVsaXZlcnlfaWQiOiJqNnQ2ZGF3MXRlYTI1MmpldmM3MiIsInRva2VuIjoiajZ0NmRhdzF0ZWEyNTJqZXZjNzIiLCJzZW5kX2F0IjoxNzU2NjAzNTgxLCJlbWFpbF9pZCI6NzUwNDk2MCwiZW1haWxhYmxlX3R5cGUiOiJDYW1wYWlnbiIsImVtYWlsYWJsZV9pZCI6NDc4NjE0LCJ1cmwiOiJodHRwczovL3ZpbWVvLmNvbS83OTU3MjU3ODQ_X19zPW16cG02bnEzY210engwM3RrNWRnIn0.fJXJS7dz1Z5vDYyK-C87l97qsMYRKNH2kHGK5GxsPvY)  
    Length is 7 minutes

**Collateral Material (programs used in the videos):**  
  
*In collateral, we try to provide the Python scripts and related files shown in the videos. In other words, we try to make it easy for you to reproduce the examples from the videos.*  
  
[Lesson1 Collateral Programs](https://t.dripemail2.com/c/eyJhbGciOiJIUzI1NiJ9..9T2A6e-h2OSW57s0ZPbR4DOejaNdhm4XkNNendeiEzs)  
  
  
  
**Additional Content:**  
  
[Google Python Course on Strings](https://t.dripemail2.com/c/eyJhbGciOiJIUzI1NiJ9.eyJhdWQiOiJkZXRvdXIiLCJpc3MiOiJtb25vbGl0aCIsInN1YiI6ImRldG91cl9saW5rIiwiaWF0IjoxNzU2NTk5OTgyLCJuYmYiOjE3NTY1OTk5ODIsImFjY291bnRfaWQiOiI0MjU0NDk3IiwiZGVsaXZlcnlfaWQiOiJqNnQ2ZGF3MXRlYTI1MmpldmM3MiIsInRva2VuIjoiajZ0NmRhdzF0ZWEyNTJqZXZjNzIiLCJzZW5kX2F0IjoxNzU2NjAzNTgxLCJlbWFpbF9pZCI6NzUwNDk2MCwiZW1haWxhYmxlX3R5cGUiOiJDYW1wYWlnbiIsImVtYWlsYWJsZV9pZCI6NDc4NjE0LCJ1cmwiOiJodHRwczovL2RldmVsb3BlcnMuZ29vZ2xlLmNvbS9lZHUvcHl0aG9uL3N0cmluZ3M_X19zPW16cG02bnEzY210engwM3RrNWRnIn0.mxV4skxbx0A_9mbxPdqykE4a1GXQ7B-67YjiFS-T_kc)  
A good overview of many aspects of strings. It includes a discussion on string slices which I don't cover in my videos. I do cover list slices which is essentially the same thing except applied in the context of Python lists.  
  
  
[How To Use f-strings to Create Strings in Python 3](https://t.dripemail2.com/c/eyJhbGciOiJIUzI1NiJ9.eyJhdWQiOiJkZXRvdXIiLCJpc3MiOiJtb25vbGl0aCIsInN1YiI6ImRldG91cl9saW5rIiwiaWF0IjoxNzU2NTk5OTgyLCJuYmYiOjE3NTY1OTk5ODIsImFjY291bnRfaWQiOiI0MjU0NDk3IiwiZGVsaXZlcnlfaWQiOiJqNnQ2ZGF3MXRlYTI1MmpldmM3MiIsInRva2VuIjoiajZ0NmRhdzF0ZWEyNTJqZXZjNzIiLCJzZW5kX2F0IjoxNzU2NjAzNTgxLCJlbWFpbF9pZCI6NzUwNDk2MCwiZW1haWxhYmxlX3R5cGUiOiJDYW1wYWlnbiIsImVtYWlsYWJsZV9pZCI6NDc4NjE0LCJ1cmwiOiJodHRwczovL3d3dy5kaWdpdGFsb2NlYW4uY29tL2NvbW11bml0eS90dXRvcmlhbHMvaG93LXRvLXVzZS1mLXN0cmluZ3MtdG8tY3JlYXRlLXN0cmluZ3MtaW4tcHl0aG9uLTM_X19zPW16cG02bnEzY210engwM3RrNWRnIn0.JmaAs4z5rfUMNtjVsRXgkOCU0LPb3I7SoD-_wA-8aok)  
A quick tutorial on Python f-strings. Covers much of the same content as is covered in the video on f-strings.  
  
  
[Automate the Boring Stuff (Chapter6 - Manipulating Strings)](https://t.dripemail2.com/c/eyJhbGciOiJIUzI1NiJ9.eyJhdWQiOiJkZXRvdXIiLCJpc3MiOiJtb25vbGl0aCIsInN1YiI6ImRldG91cl9saW5rIiwiaWF0IjoxNzU2NTk5OTgyLCJuYmYiOjE3NTY1OTk5ODIsImFjY291bnRfaWQiOiI0MjU0NDk3IiwiZGVsaXZlcnlfaWQiOiJqNnQ2ZGF3MXRlYTI1MmpldmM3MiIsInRva2VuIjoiajZ0NmRhdzF0ZWEyNTJqZXZjNzIiLCJzZW5kX2F0IjoxNzU2NjAzNTgxLCJlbWFpbF9pZCI6NzUwNDk2MCwiZW1haWxhYmxlX3R5cGUiOiJDYW1wYWlnbiIsImVtYWlsYWJsZV9pZCI6NDc4NjE0LCJ1cmwiOiJodHRwczovL2F1dG9tYXRldGhlYm9yaW5nc3R1ZmYuY29tLzJlL2NoYXB0ZXI2Lz9fX3M9bXpwbTZucTNjbXR6eDAzdGs1ZGcifQ.p_i1CfgjcogeYqA6JHQdBksiZlJtLlxENITYDEDWOLo)  
A good chapter on Python strings. I recommend stopping at the section named, "Numeric Values of Characters with the ord() and chr() Functions". The author covers some different string methods and also covers string slices.

**Exercises**

Reference code for these exercises is posted on GitHub at:

[https://github.com/twin-bridges/learning\_python/tree/main/lesson1/exercises](https://t.dripemail2.com/c/eyJhbGciOiJIUzI1NiJ9.eyJhdWQiOiJkZXRvdXIiLCJpc3MiOiJtb25vbGl0aCIsInN1YiI6ImRldG91cl9saW5rIiwiaWF0IjoxNzU2NTk5OTgyLCJuYmYiOjE3NTY1OTk5ODIsImFjY291bnRfaWQiOiI0MjU0NDk3IiwiZGVsaXZlcnlfaWQiOiJqNnQ2ZGF3MXRlYTI1MmpldmM3MiIsInRva2VuIjoiajZ0NmRhdzF0ZWEyNTJqZXZjNzIiLCJzZW5kX2F0IjoxNzU2NjAzNTgxLCJlbWFpbF9pZCI6NzUwNDk2MCwiZW1haWxhYmxlX3R5cGUiOiJDYW1wYWlnbiIsImVtYWlsYWJsZV9pZCI6NDc4NjE0LCJ1cmwiOiJodHRwczovL2dpdGh1Yi5jb20vdHdpbi1icmlkZ2VzL2xlYXJuaW5nX3B5dGhvbi90cmVlL21haW4vbGVzc29uMS9leGVyY2lzZXM_X19zPW16cG02bnEzY210engwM3RrNWRnIn0.D1_1w0cWIP3DmkU-Uz5FteXM3hFn5XsRPNhXNntUzDs)  
  
  
1. Create a variable named 'sf\_gw1', assign it an IP address of [172.31.255.1/24](http://172.31.255.1/24).  
  
Prompt for a second IP address using the input() built-in, save this to a variable named 'sf\_gw2'. Use f-strings to print out both IP addresses using columns that are twenty characters wide. Center your IP addresses in the columns. Additionally, include the strings "sf\_gw1" and "sf\_gw2" in the output. Your script output should look similar to the following:

​Please input 'sf\_gw2' IP address: [10.254.1.252/24](http://10.254.1.252/24)

sf\_gw1 sf\_gw2

-------------------- --------------------

[172.31.255.1/24](http://172.31.255.1/24) [10.254.1.252/24](http://10.254.1.252/24)

Execute your script and make sure it operates properly.  
  
  
2. Create a script that prompts for a data center location.  
  
a. Use the .upper() method to convert the data center location to all upper case. Print this variable out.  
  
b. Add extra whitespace to the end of your data center location (during the initial prompting for a data center location). Use the .strip() method to remove this extra whitespace. Use print(repr(my\_var)) to view any extra whitespace before and after you remove it. In other words, 'repr(my\_var)' will allow you to see any whitespace (when you print this to standard output).  
  
Chain the .upper() method and the .strip() method together such that these two operations occur on one line of code. Print this to standard output. Once again use print(repr(my\_var)) so that you can see any whitespace.  
  
Your output should look similar to the following:

$ python exercise2.py

Enter data center location: san francisco

Upper case:

SAN FRANCISCO

Strip off whitespace:

Before: 'san francisco '

After: 'san francisco'

Method chaining:

'SAN FRANCISCO'

3.   Use the split() method to extract the serial number from the following string. This output line is based upon the "show version" output from a Cisco IOS-XE device.

line = "Processor board ID FAL127990LA"

Note, the split() method will divide the string base upon consecutive whitespace. Consequently, executing .split() on the above 'line' variable will return four strings. For example,

# Use Python unpacking to immediately assign .split() output to four-different variables.

var1, var2, var3, var4 = line.split()

Alternatively, you can assign line.split() to a single variable. In this case a list will be returned.

# Return a list

words = line.split()

serial\_number would be the fourth element in the returned list so it would be words[3]. We will cover lists in lesson2.  
  
  
4. Expand on exercise3, do a membership check on the 'line' variable. This membership check should verify that "Process board ID" exists in line. Print the result of this membership check (this should return a boolean). Later on we will cover conditionals in Python and could use this membership check as a precondition to our split() operation (i.e. verify that the string we are looking for exists in the 'line' variable).  
  
  
5. Create a Python program that contains the following two variables:

ip\_addr = "10.12.17.1"

mac\_addr = "0024.c4e9.48ae"

Use string concatenation to print out the following (use only string concatenation, no f-strings):

​String concatenation

10.12.17.1 --> 0024.c4e9.48ae

Now, expand on your program to print similar output except this time use f-strings:

f-strings

10.12.17.1 --> 0024.c4e9.48ae

Finally, achieve a similar output except this time use the .format() method:

format() method

10.12.17.1 --> 0024.c4e9.48ae​

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