{"cells":[{"cell_type":"markdown","metadata":{"id":"fwU2iooz85jt"},"source":["## Exercises\n","\n","Answer the questions or complete the tasks outlined in bold below, use the specific method described if applicable."]},{"cell_type":"markdown","metadata":{"id":"SzBQQ_ml85j1"},"source":["** What is 7 to the power of 4?**"]},{"cell_type":"code","execution_count":null,"metadata":{"id":"UhvE4PBC85j3","outputId":"a05565aa-db43-4716-e87d-41c5c8a6f95e"},"outputs":[{"data":{"text/plain":["2401"]},"execution_count":1,"metadata":{"tags":[]},"output_type":"execute_result"}],"source":[]},{"cell_type":"markdown","metadata":{"id":"ds8G9S8j85j6"},"source":["** Split this string:**\n","\n","   s = \"Hi there Sam!\"\n","\n","**into a list. **"]},{"cell_type":"code","execution_count":null,"metadata":{"collapsed":true,"id":"GD_Tls3H85j7"},"outputs":[],"source":[]},{"cell_type":"code","execution_count":null,"metadata":{"id":"RRGOKoai85j8","outputId":"cc52f0d8-2ed1-4b4d-e956-5bbeb332cdc2"},"outputs":[{"data":{"text/plain":["['Hi', 'there', 'dad!']"]},"execution_count":3,"metadata":{"tags":[]},"output_type":"execute_result"}],"source":[]},{"cell_type":"markdown","metadata":{"id":"_bBNOu-785j9"},"source":["** Given the variables:**\n","\n","   planet = \"Earth\"\n","   diameter = 12742\n","\n","** Use .format() to print the following string: **\n","\n","   The diameter of Earth is 12742 kilometers."]},{"cell_type":"code","execution_count":null,"metadata":{"collapsed":true,"id":"2TrzmDcS85j-"},"outputs":[],"source":[]},{"cell_type":"code","execution_count":null,"metadata":{"id":"s_dQ7_xc85j_","outputId":"4235fdfb-5591-4dd9-f9d2-77f311977633"},"outputs":[{"name":"stdout","output_type":"stream","text":["The diameter of Earth is 12742 kilometers.\n"]}],"source":[]},{"cell_type":"markdown","metadata":{"id":"QAKtN7Hh85kB"},"source":["** Given this nested list, use indexing to grab the word \"hello\" **"]},{"cell_type":"code","execution_count":null,"metadata":{"collapsed":true,"id":"-7dzQDyK85kD"},"outputs":[],"source":["lst = [1,2,[3,4],[5,[100,200,['hello']],23,11],1,7]"]},{"cell_type":"code","execution_count":null,"metadata":{"id":"6m5C0sTW85kE","outputId":"c3417d1c-3081-4e24-8489-154cdce1b06b"},"outputs":[{"data":{"text/plain":["'hello'"]},"execution_count":14,"metadata":{"tags":[]},"output_type":"execute_result"}],"source":[]},{"cell_type":"markdown","metadata":{"id":"9Ma7M4a185kF"},"source":["** Given this nest dictionary grab the word \"hello\". Be prepared, this will be annoying/tricky **"]},{"cell_type":"code","execution_count":null,"metadata":{"id":"vrYAxSYN85kG"},"outputs":[],"source":["d = {'k1':[1,2,3,{'tricky':['oh','man','inception',{'target':[1,2,3,'hello']}]}]}"]},{"cell_type":"code","execution_count":null,"metadata":{"id":"FlILSdm485kH","outputId":"4232540d-95c2-461d-c78d-24ea62398e08"},"outputs":[{"data":{"text/plain":["'hello'"]},"execution_count":16,"metadata":{"tags":[]},"output_type":"execute_result"}],"source":["\n"]},{"cell_type":"markdown","metadata":{"id":"FInV_FKB85kI"},"source":["** What is the main difference between a tuple and a list? **"]},{"cell_type":"code","execution_count":null,"metadata":{"collapsed":true,"id":"_VBWf00q85kJ"},"outputs":[],"source":[]},{"cell_type":"markdown","metadata":{"id":"zP-j0HZj85kK"},"source":["** Create a function that grabs the email website domain from a string in the form: **\n","\n","   user@domain.com\n","   \n","**So for example, passing \"user@domain.com\" would return: domain.com**"]},{"cell_type":"code","execution_count":null,"metadata":{"collapsed":true,"id":"unvEAwjk85kL"},"outputs":[],"source":[]},{"cell_type

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word 'dog' is contained in the input string. Don't worry about edge cases
like a punctuation being attached to the word dog, but do account for
capitalization.
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Create a function that counts the number of times the word \"dog\" occurs
in a string. Again ignore edge cases.
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Problem\n","**You are driving a little too fast, and a police officer
stops you. Write a function\n","  to return one of 3 possible results:
\"No ticket\", \"Small ticket\", or \"Big Ticket\". \n","  If your speed
is 60 or less, the result is \"No Ticket\". If speed is between 61 \n","
and 80 inclusive, the result is \"Small Ticket\". If speed is 81 or more,
the result is \"Big    Ticket\". Unless it is your birthday (encoded as a
boolean value in the parameters of the function) -- on your birthday,
your speed can be 5 higher in all \n","  cases.
**"]},{"cell_type":"code","execution_count":null,"metadata":{"collapsed":
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caught_speeding(speed, is_birthday):\n","    \n","    if
is_birthday:\n","        speeding = speed - 5\n","    else:\n","
speeding = speed\n","    \n","    if speeding > 80:\n","        return
'Big Ticket'\n","    elif speeding > 60:\n","        return 'Small
Ticket'\n","    else:\n","        return 'No
Ticket'"]},{"cell_type":"code","execution_count":null,"metadata":{"id":"B
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and using a for loop retreive each employee salary and calculate total
salary expenditure.
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contain fields as Empid,  Empname,  Basicpay\n","\n","Second dictionary
to contain fields as DeptName,  DeptId.\n","\n","Combine both
dictionaries. "],"metadata":{"id":"-
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