What is Byte Size Learning?

Consumption of learning materials in very small chunks is byte sized learning. This is contrary to traditional learning content that had lectures spread across days and months. Byte size learning builds on small simple concepts on top of what was covered previously. This form of learning have been lately found to be very effective given the shortage of learning time, high use of mobile, and need of learning content at the last minute.

If you love data science, have the ability to simplify complex concepts, and are interested in developing next gen data science learning content, we have a role for you. But first you need to prove that you have what it takes.

What is the task ? Develop a Byte-Size Learning module to help a learner implement Principal Component Analysis.

How much time do you have to complete this task? 3 days

What is your target audience? Your Target Audience only understands basics of Python and consumes your content on mobile phones in small time windows of 2-5 mins. You might skip teaching how to import a library but you should cover every other concept you require to implement a Principal Component Analysis.

What is the Mode of Delivery? Powerpoint presentation (or Google Slides) not more than 20 slides. You will present your ppt in the next interview on a call.

Here is the detailed task.

Use the boston house-prices dataset and show how to get the top 2 Principal components from this data. Your tutorial should atleast include - what is a principal component analysis, how to import the dataset, how to visualize and understand data, how to get principal components and finally how to best visualize the principal component. You do not need to stick to this list, but your tutorial should atleast cover these basic concepts. Here are few lines of python code that will get you started :

```
from sklearn.datasets import load_boston
boston = load_boston()
X = boston["data"]
Y = boston["target"]
names = boston["feature_names"]
```

Guidelines to develop byte size learning module

1. Only one concept should be covered in one slide.
2. Do not use more than 20 words in one slide. You can use upto 3 pictures on one slide.

3. Start with very basic and interesting content to get the learner hooked.
4. Use a lot of analogies and examples. Pictures are great way to get attention.
5. Each concept should build up on the previously covered concepts. It is important that you create a knowledge map before you start creating the presentation. This will insure there is consistent chronology among slides.
6. Do not use complex sentences. Use only simple one verb sentences. Note that this content will be consumed by people while travelling or waiting or any other activity that they feel non-productive.
7. Make your content engaging and highly interactive. Give a lot of exercises.