Introduction: data, life cycle
https://docs.google.com/presentation/d/1CTAYokOTjSlRhyRUh6AiFBmSA4u_kVHqwzk9kaDeX6o/edit#slide=id.ga009845f11_0_30

Data management lifecycle: gathering, processing, analysing, presenting, preserving
https://docs.google.com/document/d/1Dudd5DYSYneuZGhAUN3dmrmhvXr0nENKmMBHyW_SJw0/edit?tab=t.0#heading=h.p9f4zmigznf3
Includes *Enterprise Data Model (MITRE Corporation),UK, USGS,* CRISP-DM data mining

Data types: structured,unstructured, discrete, continuous, 4 lvl of data type, special
https://github.com/suzannelittle/dcu-dmv/blob/main/02/02_Reference_Sheet_for_Data_Types.md

Linked data
https://github.com/suzannelittle/dcu-dmv/blob/main/02/02_Linked_Data.md

Open data
https://github.com/suzannelittle/dcu-dmv/blob/main/02/02_Open_Data.md

Big data: 3v velocity, variety, velocity
https://github.com/suzannelittle/dcu-dmv/blob/main/03/03_Big_Data.pdf

Data source, data formats, metadata, abstraction hierarchym, Granularity
https://docs.google.com/presentation/d/18UHopXLOPMLzQbWhKlgebcMsYS2Muvxr_xeHN6iVZ_U/edit#slide=id.g15b3823fa0f_0_518

Get data: api, scraping
https://github.com/suzannelittle/dcu-dmv/blob/main/03/Introduction_to_scraping_data_from_websites.md
https://github.com/suzannelittle/dcu-dmv/blob/main/03/Exercise_Getting_data_from_APIs.md

Cleaning, Quality issue during gathering, processing, analysing, storing causes and solutions
ppt:https://docs.google.com/presentation/d/15Zlddj_OnS74bV2ix8_nUjiFiJ7XbEiQTxk0UdkTwiE/edit#slide=id.g9efe6eb593_0_544
Notes:https://docs.google.com/document/d/1wKYv6L5S0aeLOLwo-4iYcKGiqxv2NlU52Aee_Wzeqgc/edit?tab=t.0#heading=h.xrr3hzmsua07

Cleaning tools strengths weakness and initial data quality checks

https://docs.google.com/document/d/13KqNwrjkPRk1WZP9vnWHt_WL_Mh_xfjwMmUj6ngf4nc/edit?tab=t.0

Graphic communication(sender, msg, medium, receiver), understanding, goals (information,persuation, education, entertainment), Kirk's principles of goor visual
https://docs.google.com/presentation/d/1h-boEjukwIQg04D1J_Yjs7XxG_5hWJ4iz3VqU-YcWbg/edit#slide=id.g17c76e1cca_0_21

When to use different charts
https://docs.google.com/presentation/d/1F-KLVgiQeQ_WYm8LvAbTEvtqb2ebZmWCvZWiom8k_1g/edit#slide=id.g18fb849810_2_13
All charts in detail
https://docs.google.com/document/d/1HE_puwChO3erJYoCWm6owNgzEQSam6jg_Kdesx1i764/edit?tab=t.0#heading=h.ldphmup34bbg

Visualizing numbers as elements
https://docs.google.com/document/d/1zgJGj5HvAHPcdFfo-KqjIOviFf3RuZ6Qi0ORIAcrZPQ/edit?tab=t.0#heading=h.mgqdnuvk62fp

Human visual processing
Perception
Attention
Pre-attentive
https://docs.google.com/presentation/d/1JiMw63mjOq7mirUO61h9Sqa0GssOyihJRYbLwdNHsag/edit#slide=id.g5422ccd97e_0_120

Preattentive features
https://docs.google.com/document/d/1bQozAAtX5TwwyOBaxz2tVtjjVrTiKs7PwmTk7caQh-k/edit?tab=t.0

spotlight and searchlight model
https://docs.google.com/document/d/1009bgTdOzpz6Gb0ny5Klo0AWf1bDLJy7l-6suT_q6NA/edit?tab=t.0

Colour
Gestalt
Designing a data-driven visualisation
Critiquing a visualisation
https://docs.google.com/presentation/d/1G6xsdztSdPOTKmWOtXubUJRjq-gNbRu3lpoZgeL9r6I/edit#slide=id.g6b2b2e26c9_0_526

Removing clutter from visualization
https://docs.google.com/document/d/1t14cCv8vUff15Rw-amvKNPB6l5YI92-gYAhZubP-w7c/edit?tab=t.0#heading=h.k8merlahh190

How to use colour

https://docs.google.com/document/d/19d02GfHHQWVR4ess3_Ud1ll4da3S8ixJukKfglknH28/edit?tab=t.0
Gestalt Theory in detail
https://docs.google.com/document/d/1lVakA5I38gqQ4mrrytPcMr8Xy7rtj3IjPYLrzMfl4Ro/edit?tab=t.0#heading=h.bu36io3ngwgl
Visualisation Process
https://docs.google.com/document/d/1DGSdh4q37__PBHwPpaDd5x3cnp-8UQ5BgF5Gggs7b08/edit?tab=t.0

Data Storage overview
What storage approach should you use for …?
Review of Exercises
Relational (traditional & modern)
Column
MPP, Data Warehouse
NoSQL
Big Data
https://docs.google.com/presentation/d/1IiWZzip3caUPRKhNzp5XF_qKZlFNhsC_vfXv_Amceis/edit#slide=id.ge1877f43b_0_79

Big data tech Map/Reduce (Apache Hadoop)
ELK
PySpark
Cloud based solutions
Map reduce
https://docs.google.com/presentation/d/1VEFc2pyHORGJMTZHPyXKp7MUK-q1eiTznrdgeBpclAo/edit#slide=id.g3170a35ad76_0_123

Data Management Tools
https://docs.google.com/document/d/16Tt0SrgGaWiypJaFD6yp8burackUVC28tq90axRrtss/edit?tab=t.0#heading=h.kbve1lctfrik

Data Protection v. Privacy
Personal Data and types of Data
Data Protection Principles
Data Protection Principles for designing tools
Legal challenges and risks
https://docs.google.com/presentation/d/1LflvuFj6epMNOZV8Dozl_Pgk2aPGyxip/edit#slide=id.p2