

The background is a complex abstract composition. It features several large, organic, overlapping shapes in muted teal, burnt orange, and mustard yellow. These shapes are filled with various patterns: some are solid, some have a fine dot pattern, some have a larger dot pattern, and one has a cross-hatch pattern. Scattered throughout the composition are small, hand-drawn wavy lines in white and black. The overall aesthetic is modern and artistic.

# Task1

# Reading and reporting

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- Read the two articles and write a 2-page report of each:
  - turing.pdf
  - 10.2478\_jagi-2014-0001.pdf



# Python

- Make a class called person
  - Attributes: name, age, skill level (number between 1-10), winning\_count
  - Functions: setters and getters, add\_skill(n), add\_winning (), play\_against(person) -> change winning\_count and skill based on a probability of winning if the skill\_level difference is maximum 2 the winning probability is 50% for each and if the difference is between 2-4 the higher skill wins 75% of the time and higher differences end with 100% winning.
  - Constructor choose a random name form 10 names given, and sets age, skill\_level and winning\_count randomly
  - Make a function to choose using sampling from a normal distribution
- Create a list of 10 people and make them play in 20 iterations

# SQL

- Create SQLite database with the following tables students, professors, administrators, courses, and add the columns you wish. Add the primary and foreign keys.
- Create at least all types of joins
- Create at least two selects with “where” clauses

# Python

- Create a function that computes the area under the curve  $f(x)=x^2+2$  over the interval  $[1, 2]$  by summing the areas of rectangles formed when dividing the interval into  $n$  subintervals.
- Calculate the area between the function above and  $f(x)=x$
- Generate a function that, upon each call, produces three distinct numbers  $a$ ,  $b$ , and  $c$ , such that for any given  $n$ , the sum of  $a$ ,  $b$ , and  $c$  equals  $n$ .

# GIT

- Create a GIT repository for your files