

INNOVATION

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GRADE ANALYTICS NAVIGATION

A link that routes you to the grade analytics page:

G00417529

[Students](#)

[Grades](#)

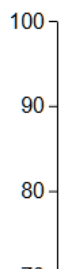
[Lecturers](#)

[Grade Analytics](#)

A link that brings you back home

Grade Analytics

[home](#)

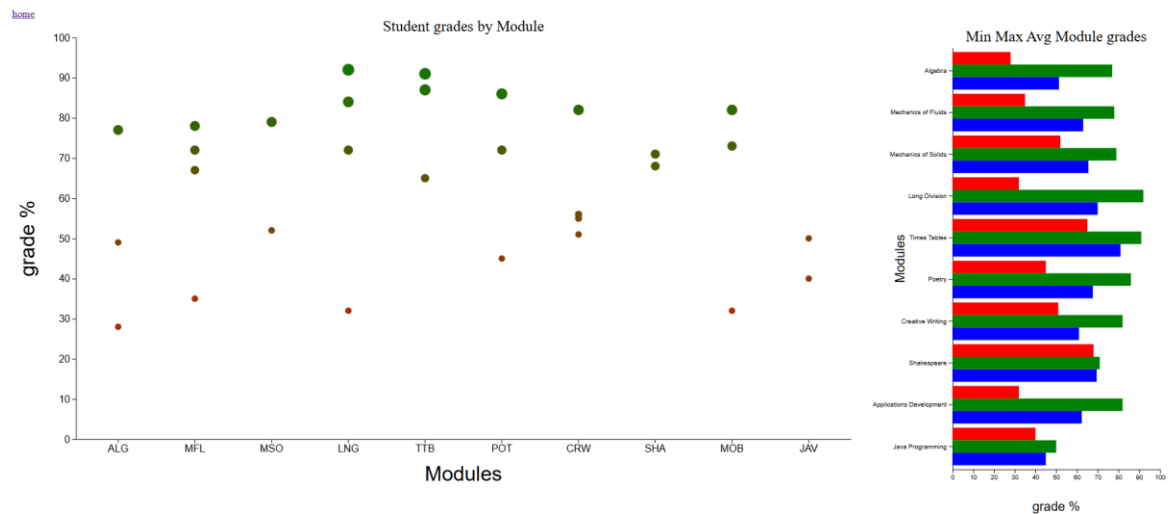


Student grades by Module

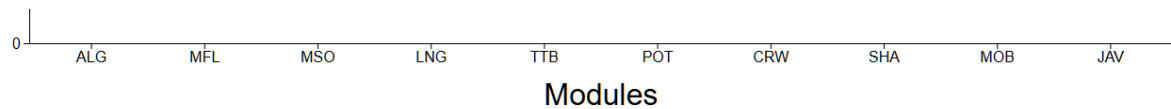
DYNAMIC GRADE ANALYTICS PAGE

This page visualizes the student grade data **dynamically** based on the current SQL database values and aims to convey data in a digestible manner. I've used the **D3.js library** to achieve this.

Grade Analytics



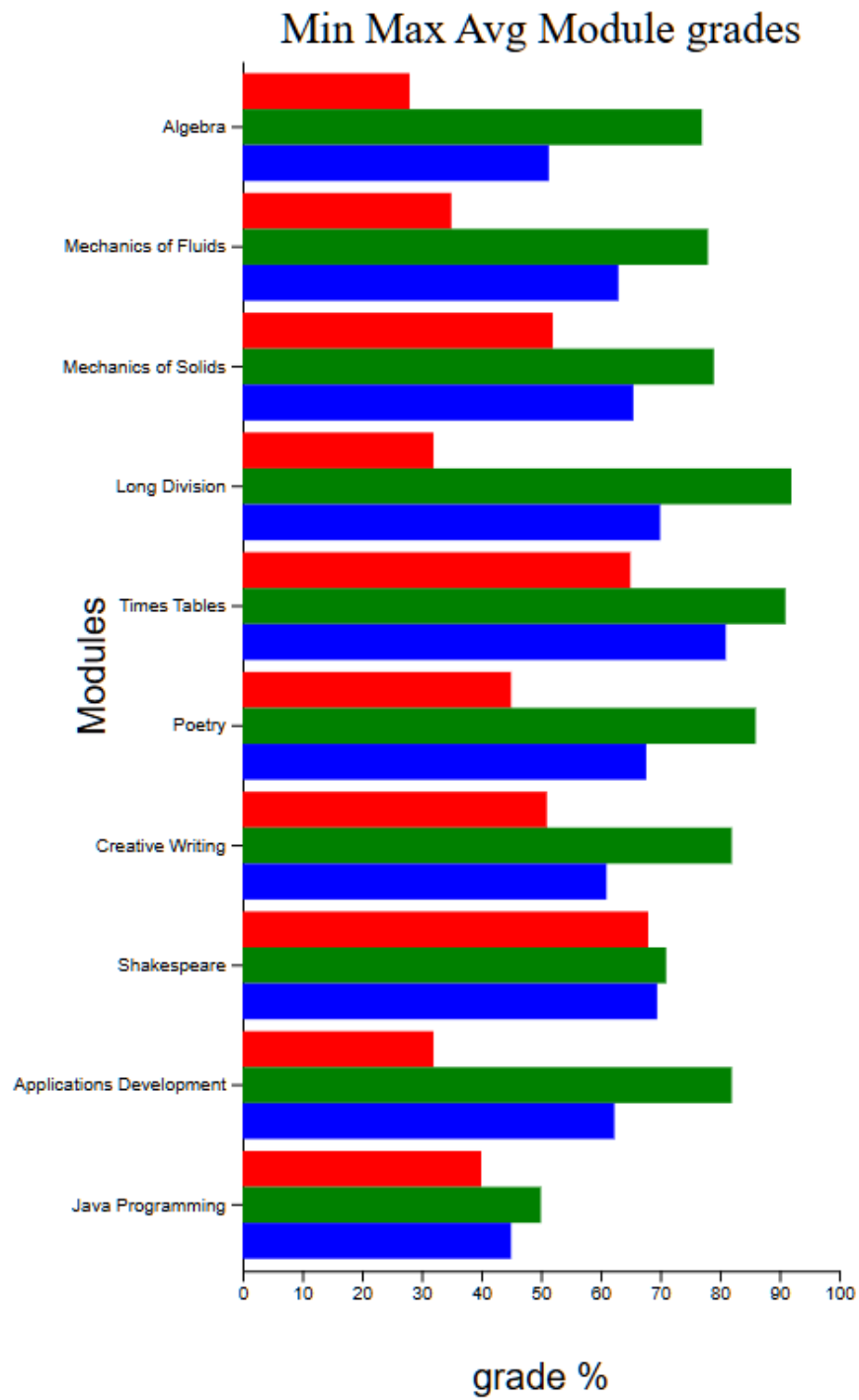
DYNAMIC AXES LABELS:



1. Page automatically fetches all existing modules from the current MYSQL database and **only** plots those with **existing values**.

2. The page dynamically uses abbreviations for the module labels on the X axis for student **grades by module chart** as to free up vertical space

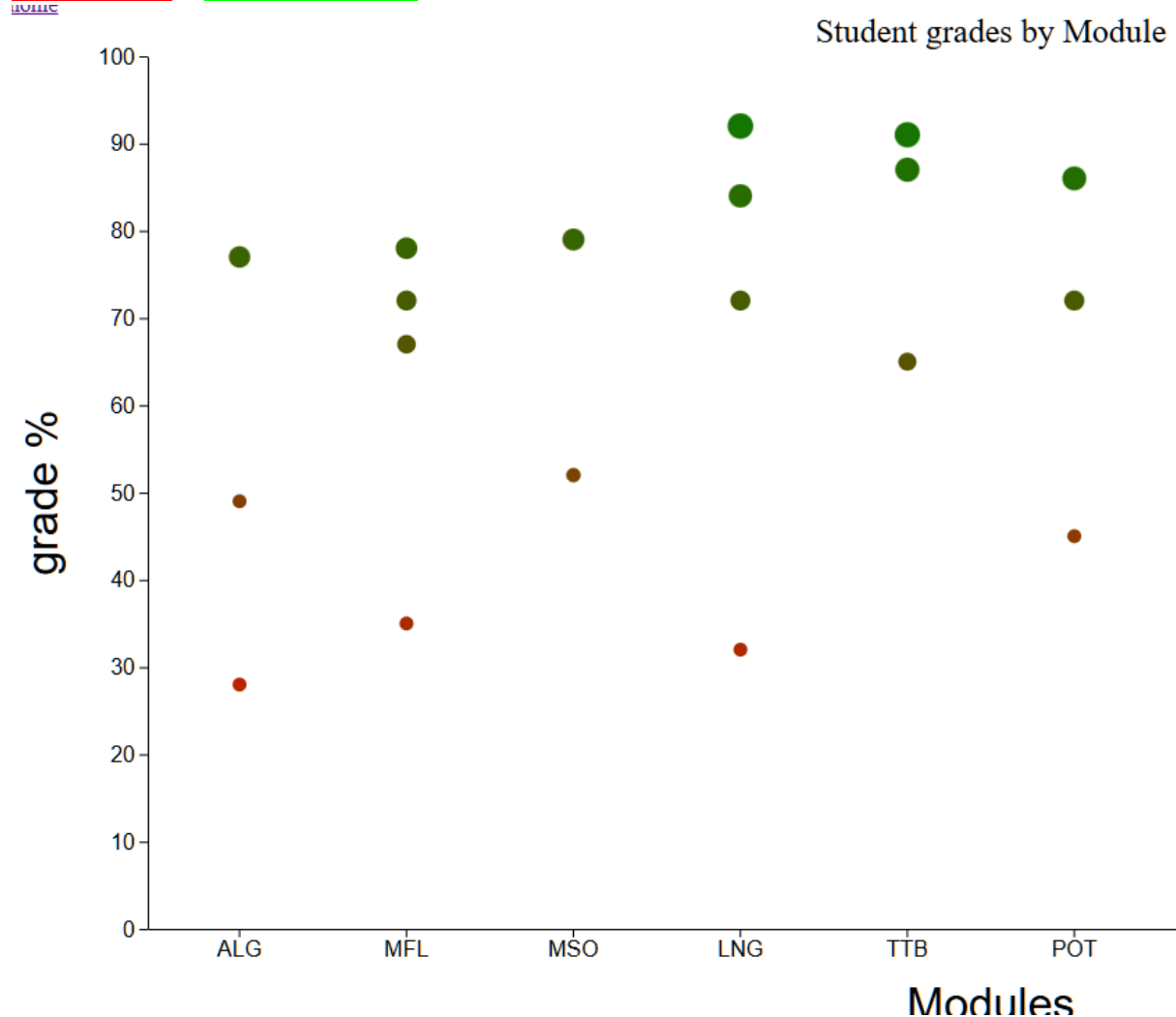
3. Labels on the **Min Max Avg module grades** graph are dynamically set to **full** module **names**



COLOUR CODING

COLOUR LERPING

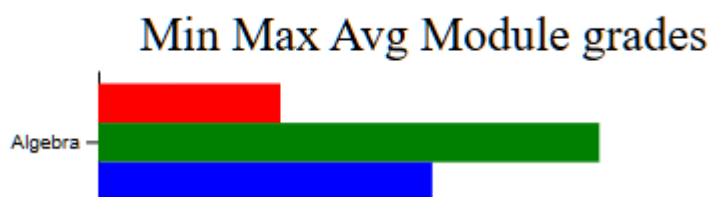
The colours of the data points from the **Student Grades by Module** graph are dynamically lerped from red (0% score) to green (100% score) to make their grade value more apparent



BAR CHART COLOUR CODING

Bar charts are colour coded into 3 sections for each group value:

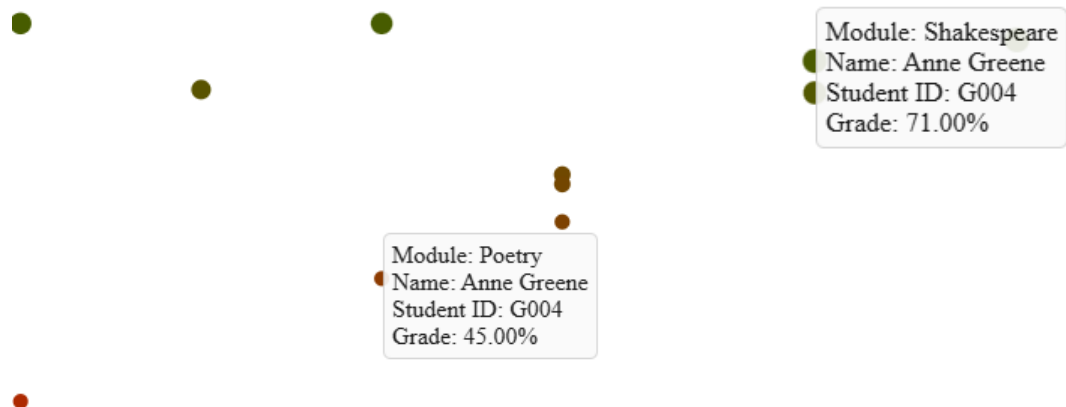
Red for lowest grade, Green for highest grade and blue for average grade



DATA POINT TOOL TIPS

STUDENT GRADES BY MODULE TOOL TIPS

Hovering over any point value in the chart will **smoothly tween** in a user interface that displays the following information about the data point



MIN MAX AVG MODULE GRADES TOOL TIPS

Hovering over any bar in this chart will smoothly tween in a user interface that displays either the min, max or average depending on the bars colour. The user interface displays Student ID, Student Name and the corresponding score value or the total module average as show below for the long division module results:

