

INNOVATION

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TABLE OF CONTENTS

Innovation.....	1
Grade Analytics Navigation.....	1
Dynamic Grade Analytics Page	2
Dynamic Axes Labels:	2
Colour coding.....	3
Colour Lerpig.....	4
Bar Chart Colour Coding.....	4
Data Point Tool Tips	4
Student grades by module Tool Tips	5

GRADE ANALYTICS NAVIGATION

A link that routes you to the grade analytics page:

G00417529

[Students](#)

[Grades](#)

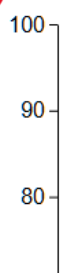
[Lecturers](#)

[Grade Analytics](#)

A link that brings you back home

Grade Analytics

[home](#)

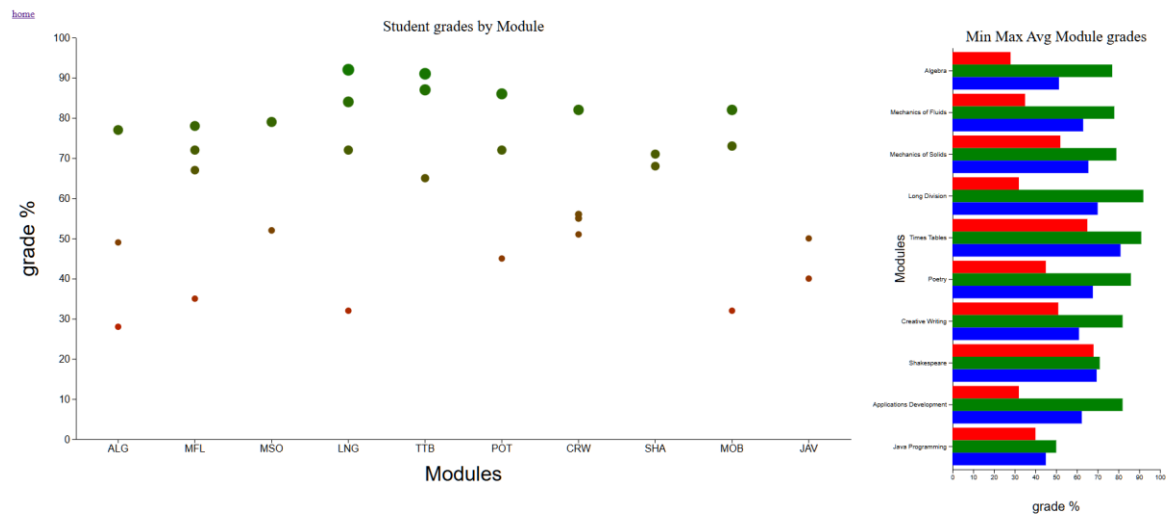


Student grades by Module

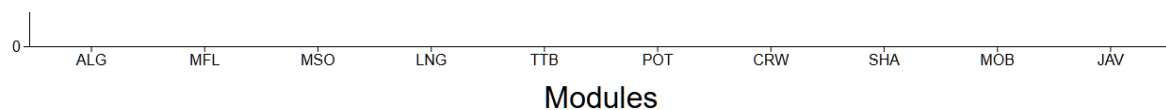
DYNAMIC GRADE ANALYTICS PAGE

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:

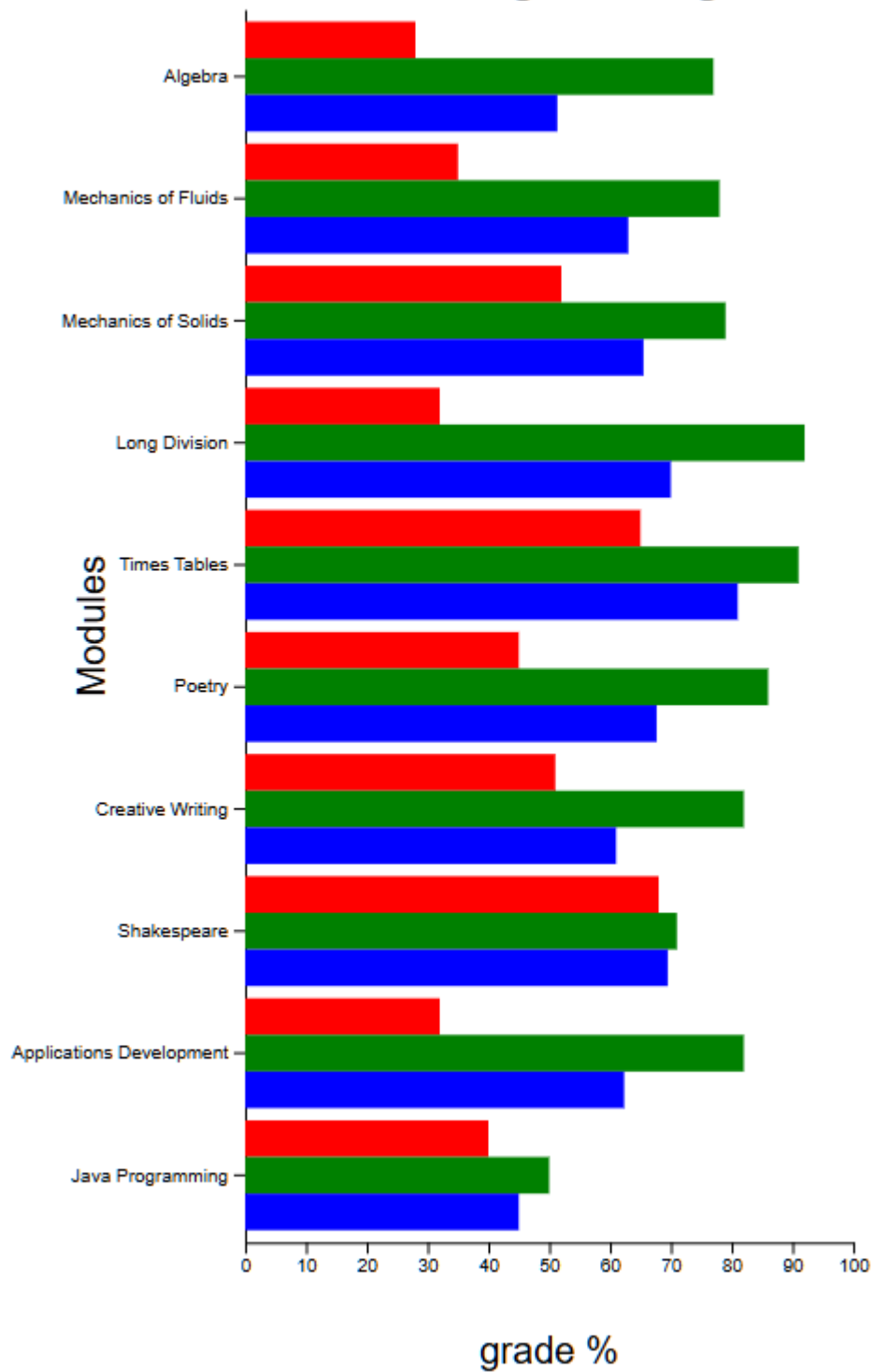


1. Page automatically fetches all existing modules from the current MYSQL database and **only** plots those with **existing values**.
2. The page dynamically uses abbreviations for the module labels on the X axis for student **grades by module chart** as to free up vertical space
3. There is a small variance in each point offset created from a seed that's generated from the students SID to create a more appealing visual and prevent overlapping while not regenerating every time you refresh the page and stay consistent across all devices.

variance

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

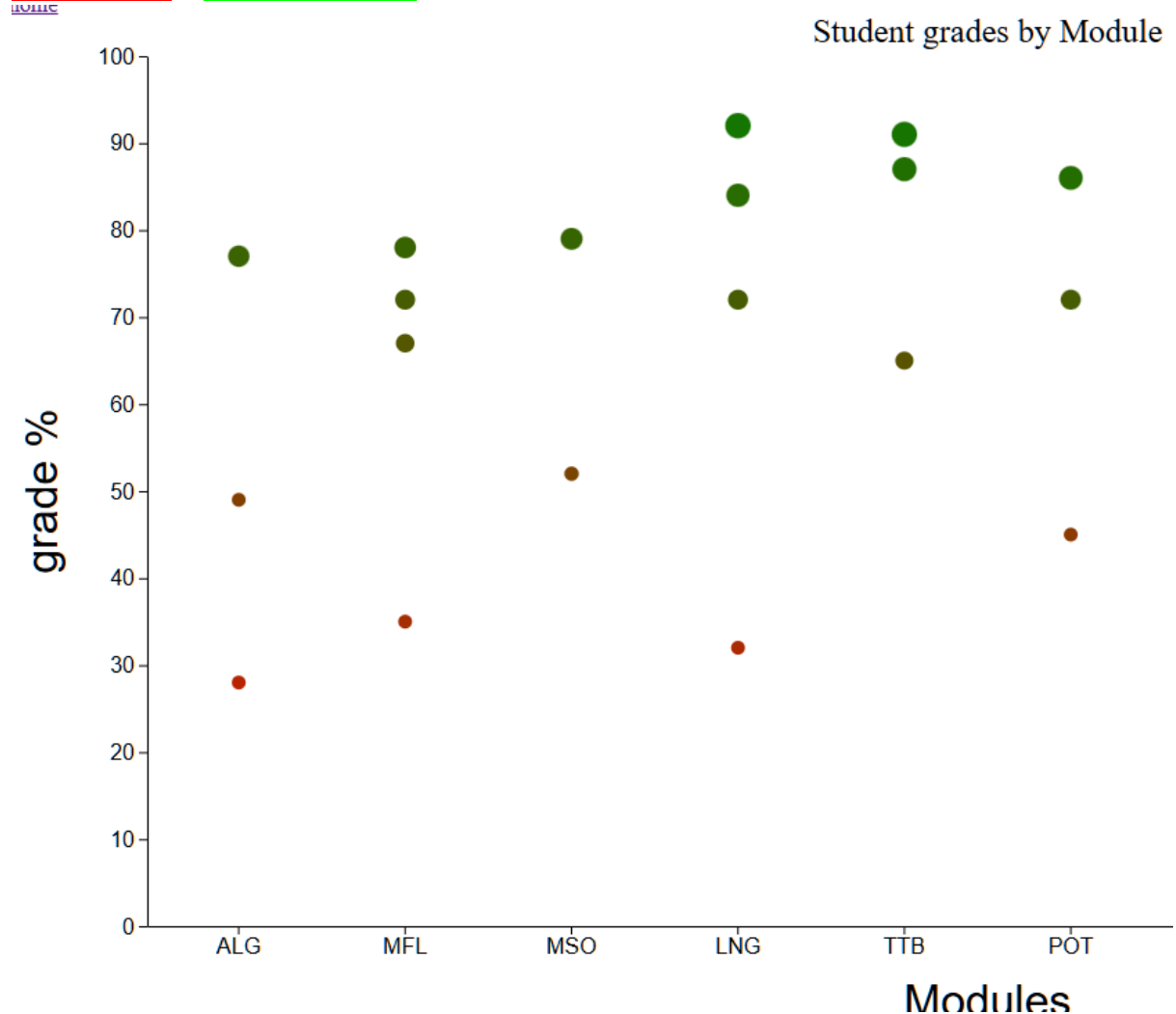
Min Max Avg Module grades



COLOUR CODING

COLOUR LERPING

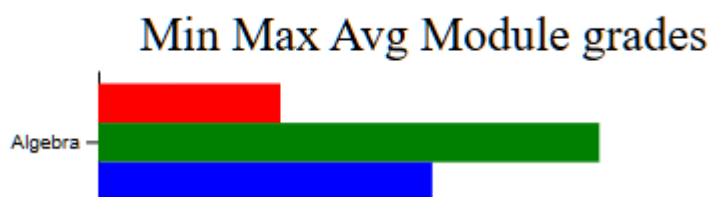
The colours of the data points from the **Student Grades by Module** graph are dynamically lerped from red (0% score) to green (100% score) to make their grade value more apparent



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

