1. PROJECT SUMMARY

Project Title: Variablz Academy – Analytical Report  
Tool Used: Microsoft Power BI  
Objective: To track and analyze course-level revenue, student distributions, tax metrics, and certification performance for Variablz Academy.

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2. DATA MODEL

Tables:

* courses (course id, course name, fee)
* payments (transaction id, date, student id, course, paid, tax)
* students (id, name, age, joined date, completed date, area, city)
* certificates (id, student, course, date) → created using Power Query (M language)

Relationships:

* courses[course id] → payments[course id] (Many to One)
* payments[student id] → students[student id] (Many to One)
* students[student id] → certificates[student id] (One to One)

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🧮 3. KEY DAX MEASURES

* Income without Tax:

DAX

Income without tax = SUM(payments[paid]) - SUM(payments[Tax])

* Total Sales:

DAX

Total Sales = SUM(payments[paid])

* Average Sales:

DAX

Average Sales = AVERAGE(payments[paid])

* Sales Count:

DAX

Sales Count = COUNT(payments[transaction id])

* Tax:

DAX

Tax = SUM(payments[Tax])

* 18% Estimated Tax:

DAX

Tax18 = SUM(payments[paid]) \* 0.18

* Calculation Group:  
  Created for toggling between different metrics (Total Sales, Average Sales, Tax, etc.)

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4. DASHBOARD VISUALS & PURPOSE

Main Dashboard:

* KPI Cards:
  + Income without Tax: ₹1.40M
  + Tax: ₹317.7K
  + Target KPI: ₹160.6K (Actual: ₹183.64K, +355.56%)
* Pie Chart:
  + Axis: City
  + Value: Income without Tax
  + Purpose: Identify which cities generate the most revenue.
* Column Chart:
  + Axis: Course Name
  + Value: Income without Tax
  + Purpose: Evaluate which courses bring in the most revenue.
* Ribbon Chart:
  + Axis: Month
  + Value: Income without Tax
  + Purpose: Monthly trend analysis for academy-wide income.
  + Slicer: Month selection

➤ Cuddalore Report Dashboard:

* Area Chart:
  + Axis: Course Name
  + Value: Income without Tax and Tax
  + Purpose: Analyze financials by course for Cuddalore area.
* Waterfall Chart:
  + Axis: Month & Area
  + Breakdown: Area
  + Value: Income without Tax
  + Purpose: Visualize increases/decreases in income month-wise, broken down by area.

➤ Pondicherry Report Dashboard:

* Area Chart & Waterfall Chart with similar logic, filtered for Pondicherry.

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5. KEY INSIGHTS & RECOMMENDATIONS

Insights:

* Courses like Flutter and Streamlit generate the highest revenue.
* Pondicherry contributes 31.34% of revenue, followed by Cuddalore (26.94%).
* Income peaked in April (₹168K) and dipped in June (₹82K).
* Some areas show negative contributions in waterfall charts — possible refunds or revenue drop.

Recommendations:

* Increase promotion for top courses (Flutter, Streamlit, Matplotlib).
* Investigate reasons for negative revenue in some areas.
* Implement student feedback mechanisms in underperforming courses.
* Leverage high-income cities like Pondicherry for advanced certifications.

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6. KEY VISUAL REQUIREMENTS (CHECKLIST)

* Course Name, City, Area slicers present
* Measures dynamically switchable via calculation group
* All visuals have clear legends and consistent units (K, M)
* Color-coded area contributions in waterfall charts
* Goal-based KPI card with delta comparison (+355.56%)
* Ribbon chart time-based navigation with slicer
* Dashboard pages clearly separated by geography

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7. TRAINER PRESENTATION SUMMARY

“This Power BI project analyzes Variablz Academy’s student payments and course revenue across different regions. I integrated four datasets and built DAX measures for key KPIs such as total sales, tax, and income without tax. Visuals like ribbon charts and waterfall plots show monthly trends and regional impacts. Insights helped me identify top-performing cities and courses, and I built goal-based cards to track business targets. The dashboard is scalable and supports additional drill-downs by course, area, or student.”