



Nderitu Michael Wachira

A STATISTICIAN

MY JOURNEY

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welcome to **MY CREATIVE PRESENTATION**

**this is where you will see the presentation of my journey as a statistician.
That is, in data entry, data analysis and data presentation.**

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DATA ANALYST

an introduction

ABOUT ME

I am a dedicated and detail-oriented professional with a background in Statistics and hands-on experience in data management, research support, monitoring and evaluation, and public service processes. Having worked with institutions such as the Kenya Medical Practitioners and Dentists Council (KMPDC), I have developed strong skills in data entry, analysis, policy support, and performance management systems such as HRIS and NIMES. I am passionate about using data to inform decision-making, improve service delivery, and support development projects. My strengths include excellent organizational skills, teamwork, and a commitment to ethical, impactful work in both field and office settings.



Mr. Nderitu

VISION

To be a dynamic resource that actively influences:

- **the capabilities of carrying out researches on the statistical issues.**
- **Proper interpretation of the data for proper solution strategy.**
- **and the advancement of research and education in environmental statistics.**

M O R E

MISSION

Is to ascertain the priority of research studies about statistics in increasing the availability of highly valuable data, providing accurate insights and analysis for process improvement and decision support through the use of statistical intelligence tools.

M O R E

personal SKILLS

- **Performance Management:** Experienced in performance contracting and use of GPCIS for tracking and reporting.
- **Data Collection & Analysis:** Skilled in digital tools (KoboToolbox, Google Forms) and statistical software (R, SPSS, STATA, Excel).
- **Research & Reporting:** Proficient in data interpretation and producing clear, actionable reports.
- **Administrative Support:** Strong in data entry, HRIS systems, Microsoft Office, and project coordination.
- **Stakeholder Engagement:** Excellent interpersonal skills with experience in client service and team collaboration.
- **Creative Thinking:** Innovative and solution-oriented, with a background in community engagement and youth leadership.

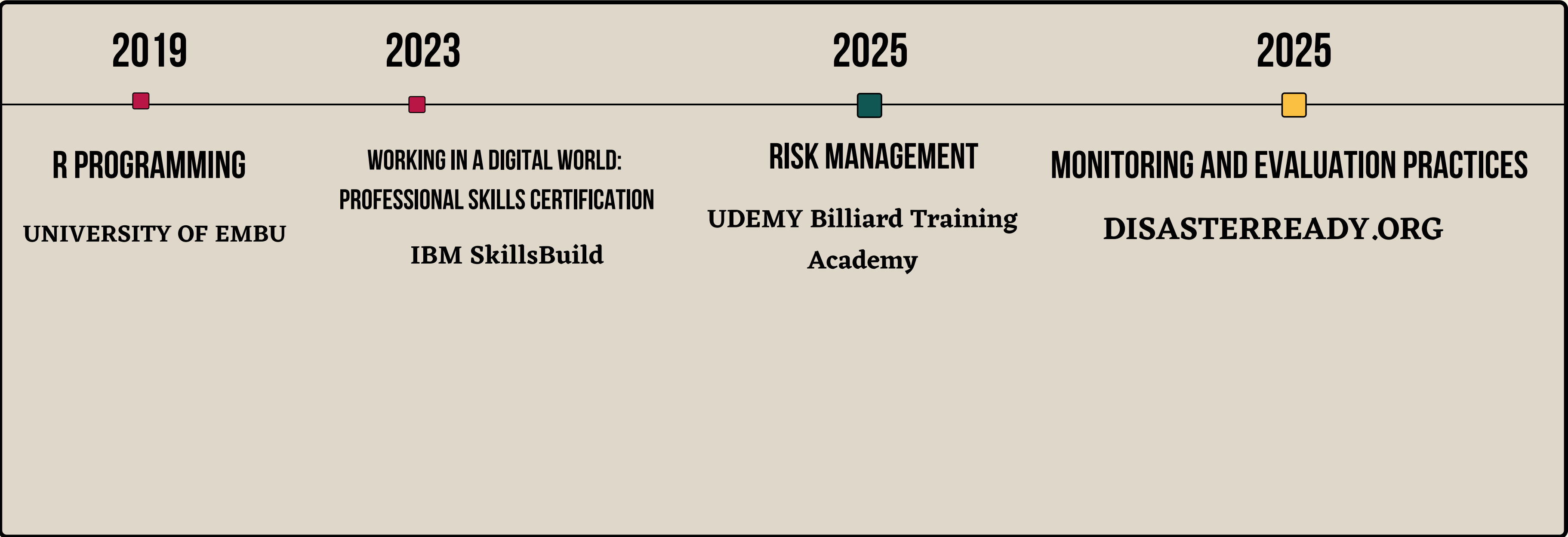


EDUCATION BACKGROUND

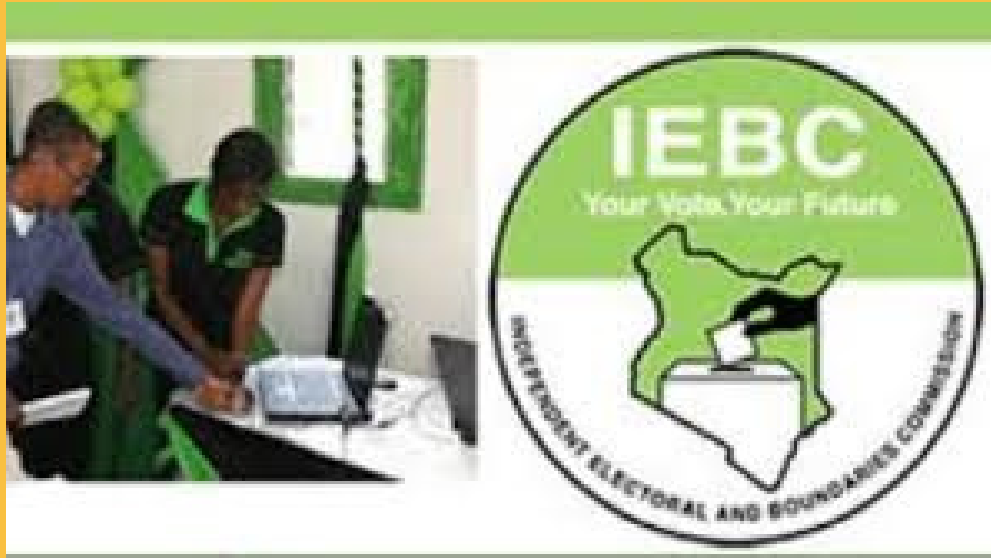
2013-2016	2017	2017-2021
<div>HIGH SCHOOL</div> <div>St. Mary Karumandi High School</div> <div>Grade:C+</div>	<div>SCHOOL OF COMPUTER PACKAGE</div> <div>Kenya Medical Training College</div> <div>Loitokitok Campus</div>	<div>SCHOOL OF PURE AND APPLIED SCIENCE</div> <div>UNIVERSITY OF EMBU</div> <div>pursued Bachelor of Science in Statistics</div> <div>attained: Second class Honor (Lower Division)</div>

MR. NDERITU

PROFESSIONAL CERTIFICATE



work EXPERIENCE



and my work was well appreciated. During that period, I was also given a duty by the supervisor of our team to lead the team in ensuring all things went smoothly during the election period. I was in charge of the Biometric pad used for election purposes and I ensured all were safe and elections were done smoothly.

Clerk officer during the 2017 election.

I associated myself during the election and after re-election in 2017. I was appointed as a clerk officer

LANDMARK BIBLE COLLEGE.

I associated myself at Landmark Bible college with the marketing team and that opened opportunities there, in be an exam coordinator. I also did volunteer work as a researcher on biblical content for teaching and theoretical knowledge expounding my research work skills.

General shop attendant

this experience as an attendant, has improved my accounting skills and data entry using excel software for sales done.

ACADAMIC WRITING

My experience in academic writing has sharpen my skills both academically and in computer skills. submitting work on time was my best work strategy and promoting a good relationship with my clients. Ups and downs never lacks but we grow and we learn from our experience and that has made my skills grown and my judgement nature to be of positive believe that I can.

work EXPERIENCE

KENYA MEDICAL PRACTITIONERS AND DENTISTS COUNCIL

Supported the Strategic Research and Quality Assurance Department at KMPDC by managing and entering data in the Human Resource Information System (HRIS) for practitioner and facility registration, and patient medical referrals abroad. Contributed to the development of an online data collection tool and improved staff performance appraisal systems. Provided administrative support through the Visitor Management System, including client data recording and database cleaning. Participated in the evaluation and moderation of the 2023/24 performance contract with the Public Service Commission, and supported the preparation and uploading of the 2024/25 contract to the Government PCIS. Additionally, assisted in longlisting applicants through data entry and cleaning after recruitment deadlines.

PUBLIC SERVICE COMMISSION

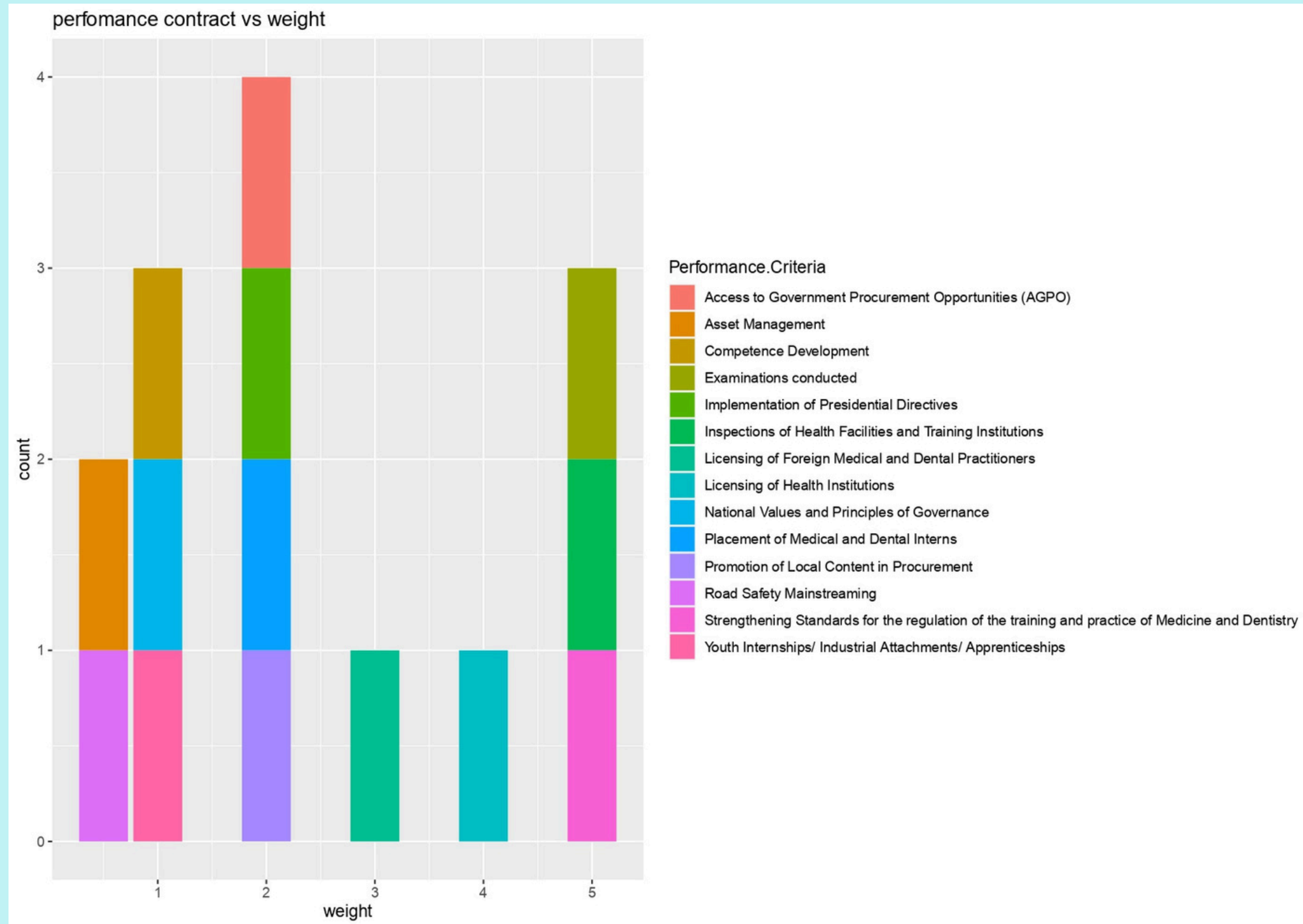
Supported strategic planning and performance management functions by assisting in the development and review of the Corporate Strategic Plan and ensuring alignment with departmental policies and procedures. Contributed to coordinating corporate performance management processes across all directorates, linking performance contract indicators with strategic objectives, and cascading performance targets within the Council. Participated in the monitoring and evaluation of performance contracts and the preparation of quarterly and annual performance reports. Collaborated with HR in staff appraisals and contributed to the development of national guidelines on performance contracting. Also supported economic and statistical data collection, report writing, and preparation of operational budget proposals for departmental planning and evaluation of Council programs and projects.

PERFORMANCE CONTACT

The bar chart compares the number of performance criteria assigned to different weight values (1 to 5). Each bar segment represents a specific performance criterion, showing how many criteria are allocated per weight category.

- Weight 2 has the highest number of performance criteria (4).
- Weights 1 and 5 also have a significant number of criteria (3 each).
- Weights 3 and 4 have fewer criteria (1 each).
- Performance areas such as "Implementation of Presidential Directives", "Youth Internships", and "National Values and Principles of Governance" are given higher weights (5 and 2), indicating higher priority or complexity.

- Criteria like Road Safety Mainstreaming and Asset Management appear in lower weight categories (1).
- Helps in identifying which objectives are given more strategic focus in the contract.



EXCEL REPORT

This report tracks the daily financial operations of a business in April 2023, detailing cash flow, sales, purchases, profits, and banking activities.

◆ Key Totals (April 1st–30th, 2023):

- Opening Balance: Ksh 49,041
- Total Sales: Ksh 106,711
- Total Purchases: Ksh 92,263
 - From Sales: Ksh 28,263
 - From Investment: Ksh 64,000
- Total Net Amount: Ksh 14,448
- Total Cash Received: Ksh 31,466
- M-Pesa (Till by Customer): Ksh 15,273
- M-Pesa (Till by Attendant): Ksh 2,013
- Total Profit: Ksh 21,063
- Total Amount Banked: Ksh 89,874
- Money Sent for Supplies/Other: Ksh 1,932
- New Opening Balances Adjusted: Ksh 46
- Working Commission for April: Ksh 3,287.26
- Total Commission (April): Ksh 42,717.74

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
	Date	Openin g balanc e	Sales	Purchases from sales	purch ases from Invest	Total purchas es	Net	Cash	M-pesa Till by Custome	M-Pesa Till by attendant	Profit	Buying Price	Total Banked	money less openings	new openin g balanc	mone y sent for		DATE	WORKING S COMMISSI ON	TOTAL COMMISSI ON
2																				
3	1-Apr	2,000	5,385	910	0	910	4,475	910	4,475	0	877.2	4,507.8	4,475	0	2,000	0		AUGUST	3416.8	17360.13
4	2-Apr-23	2,000	0	0	0	0	0	0	0	0	0	0.0	0	0	2,000	0		SEPTEMBER	3206	20566.13
5	3-Apr-23	2,000	15,525	1,732	0	1,732	13,793	1,735	13,790	3	2551	12,973.8	13,793	0	2,000	0		OCTOBER	3136.8	23702.93
6	4-Apr-23	755	3,365	1,657	0	1,657	1,708	1,660	1,705	3	394.5	2,970.5	1,708	0	755	0		NOVEMBER	2903.8	26606.73
7	5-Apr-23	755	1,815	475	3,850	4,325	-2,510	475	1,340	0	289.3	1,525.7	1,340	0	755	3,850		DECEMBER	3441.26	30047.99
8	6-Apr-23	810	3,105	1,565	25,510	27,075	-23,970	1,835	1,270	0	521.9	2,583.1	1,270	270	1,080	25,510		JANUARY	3360.33	33408.32
9	7-Apr-23	1,080	9,065	200	0	200	8,865	670	8,395	0	1622	7,443.3	8,395	470	1,550	0	0	FEBRUARY	3186	36594.32
10	8-Apr-23	1,550	345	822	0	822	-477	215	130	0	33.7	311.3	130	-607	943	0		MARCH	2836.16	39430.48
11	9-Apr-23	943	0	0	0	0	0	0	0	0	0	0.0	0	0	943	0		APRIL	3287.26	42717.74
12	10-Apr-23	943	5,871	1,420	0	1,420	4,451	2,796	3,075	319	808.7	5,062.3	3,394	1,057	2,000	0				
13	11-Apr-23	2,000	11,640	565	0	565	11,075	565	11,075	0	2852	8,787.7	11,075	0	2,000	0				
14	12-Apr-23	2,000	3,045	1,317	0	1,317	1,728	1,465	1,580	148	315.9	2,729.1	1,728	0	2,000	0				
15	13-Apr-23	2,000	3,290	1,245	0	1,245	2,045	1,270	2,020	25	502	2,788.0	2,045	0	2,000	0				
16	14-Apr-23	2,000	2,605	1,365	0	1,365	1,240	1,685	920	320	331.1	2,273.9	1,240	0	2,000	0	0			
17	15-Apr-23	2,000	2,115	1,365	0	1,365	750	1,535	580	170	310.8	1,804.2	750	0	2,000	0				
18	16-Apr-23	2,000	0	0	0	0	0	0	0	0	0	0.0	0	0	2,000	0				
19	17-Apr-23	2,000	3,945	1,275	0	1,275	2,670	725	3,220	0	523.7	3,421.3	3,220	-550	1,450	0				
20	18-Apr-23	1,450	1,375	975	0	975	400	480	895	0	83.7	1,291.3	895	-495	955	0				
21	19-Apr-23	955	2,400	600	0	600	1,800	845	1,555	0	425.8	1,974.2	1,555	245	1,200	0				
22	20-Apr-23	1,200	2,355	610	0	610	1,745	1,245	1,110	0	379.4	1,975.6	1,110	635	1,835	0				
23	21-Apr-23	1,835	4,320	2,850	0	2,850	1,470	3,035	1,285	20	518.5	3,801.5	1,305	165	2,000	0				
24	22-Apr-23	2,000	2,820	2,040	0	2,040	780	2,230	590	190	429.1	2,390.9	780	0	2,000	0				
25	23-Apr-23	2,000	0	0	0	0	0	0	0	0	0	0.0	0	0	2,000	0	280			
26	24-Apr-23	2,000	5,795	1,600	280	1,880	3,915	1,885	3,910	285	929.6	4,865.4	4,195	0	2,000	280				
27	25-Apr-23	2,000	3,355	2,180	0	2,180	1,175	945	2,410	0	457.6	2,897.4	2,410	-1,235	765	0				
28	26-Apr-23	765	3,380	665	310	975	2,405	2,005	1,375	105	578	2,802.0	1,480	1,235	2,000	310				
29	27-Apr-23	2,000	3,880	465	34,050	34,515	-30,635	615	3,265	150	484.4	3,395.6	3,415	0	2,000	34,050				
30	28-Apr-23	2,000	5,915	365	0	365	5,550	640	5,275	275	617.1	5,297.9	5,550	0	2,000	0				
31	29-Apr-23	2,000	6,215	4,050	0	4,050	2,165	4,320	1,895	270	938.2	5,276.8	2,165	0	2,000	0				
32	30-Apr-23	2,000	0	0	0	0	0	0	0	0	0	0.0	0	0	2,000	0				
33	Total	49,041	106,711	28,263	64,000	92,263	14,448	31,466	75,245	2,013	21,063	89,874	77,258	1,190	50,231	64,000				
34	Mean aug		3,442	912	2,065	2,976	466	1,015	2,427	65			2,492	46	1,932					

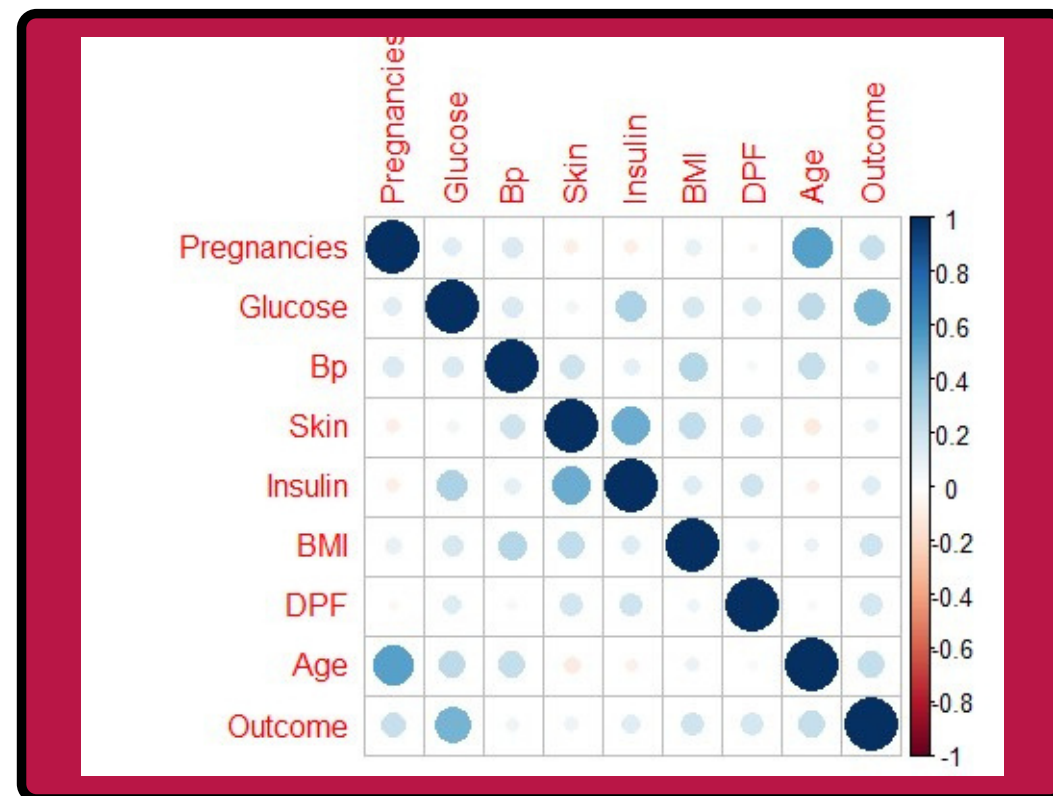
📌 Observations:

- The business heavily relied on investment purchases (Ksh 64,000), especially on days with high restocking.
- Profit peaked on days with high sales and low expenses (e.g., April 3rd, 6th, and 9th).
- Significant funds were banked regularly, showing good financial discipline.
- M-Pesa was a key transaction channel, used both by customers and attendants.
- Some days experienced negative net (e.g., April 5th and 6th) due to heavy purchase spending.

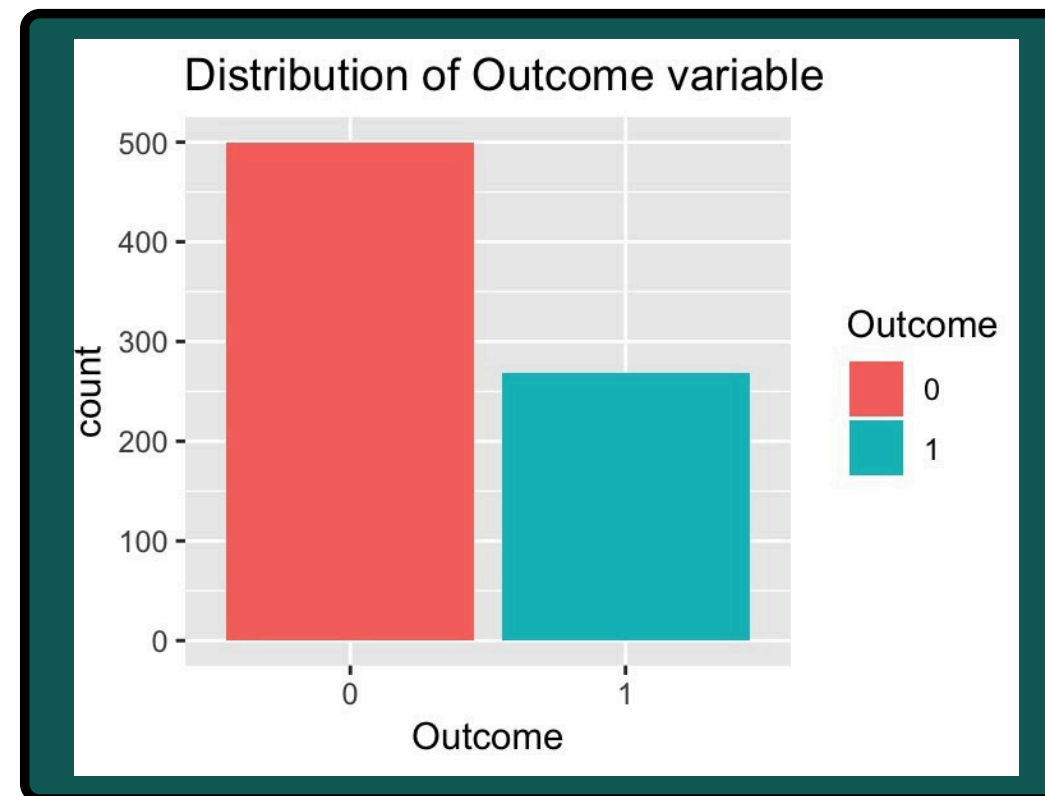
project PORTFOLIO

My final year project was on the binary logistic model of diabetes and its contributing factor. It was a great experience in formulating data and data cleaning for analysis. I used R Studio in analyzing my data and it was enjoyable dealing with big data having seven variables and finding solutions on diabetes.

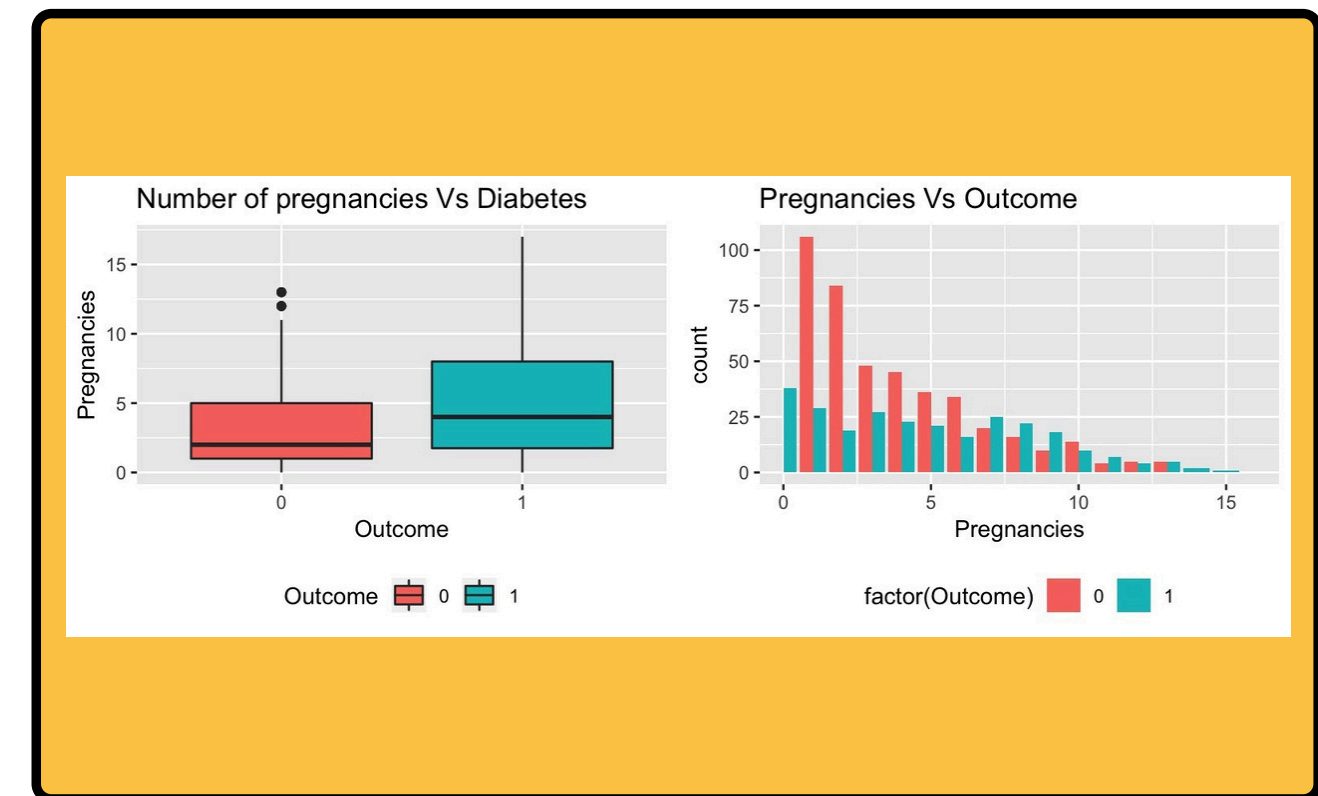
below are some of my graphic presentation I managed to get during my analysis.



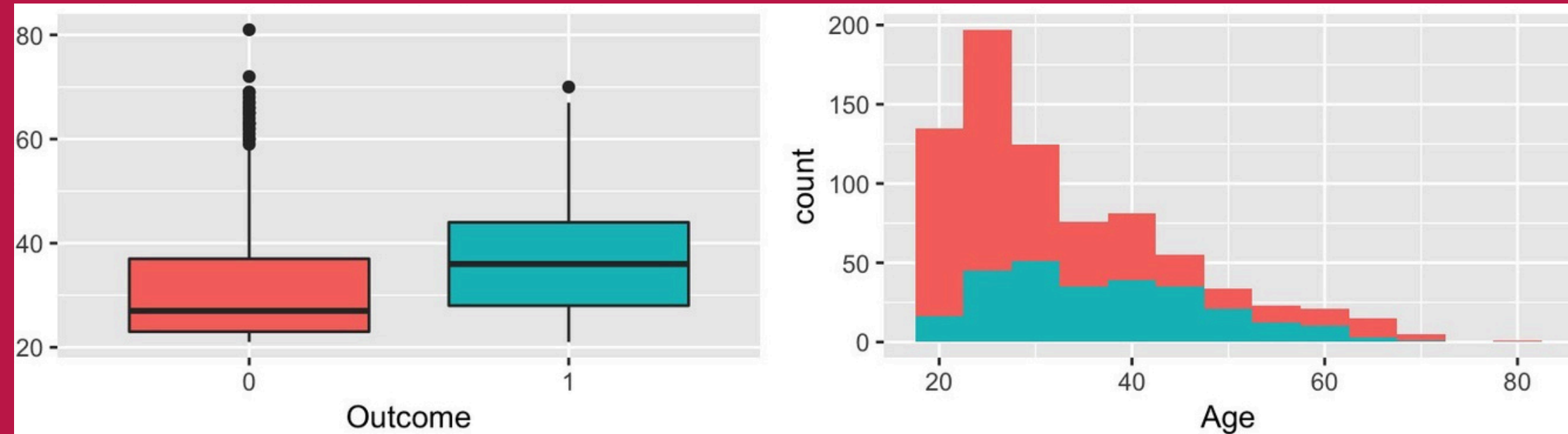
1ST PRESENTATION



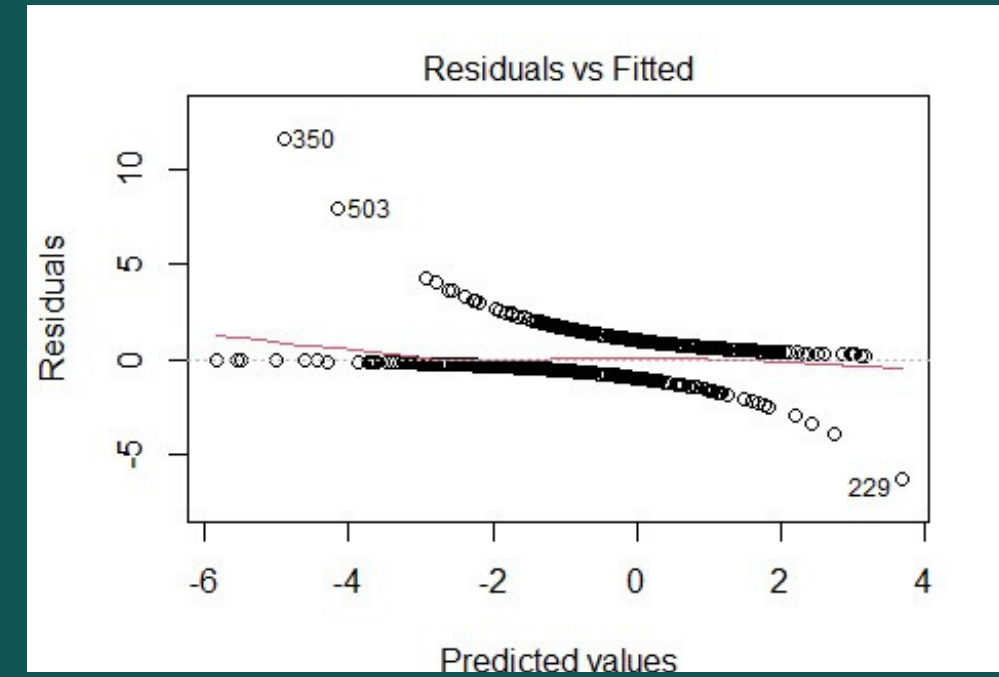
2ND PRESENTATION



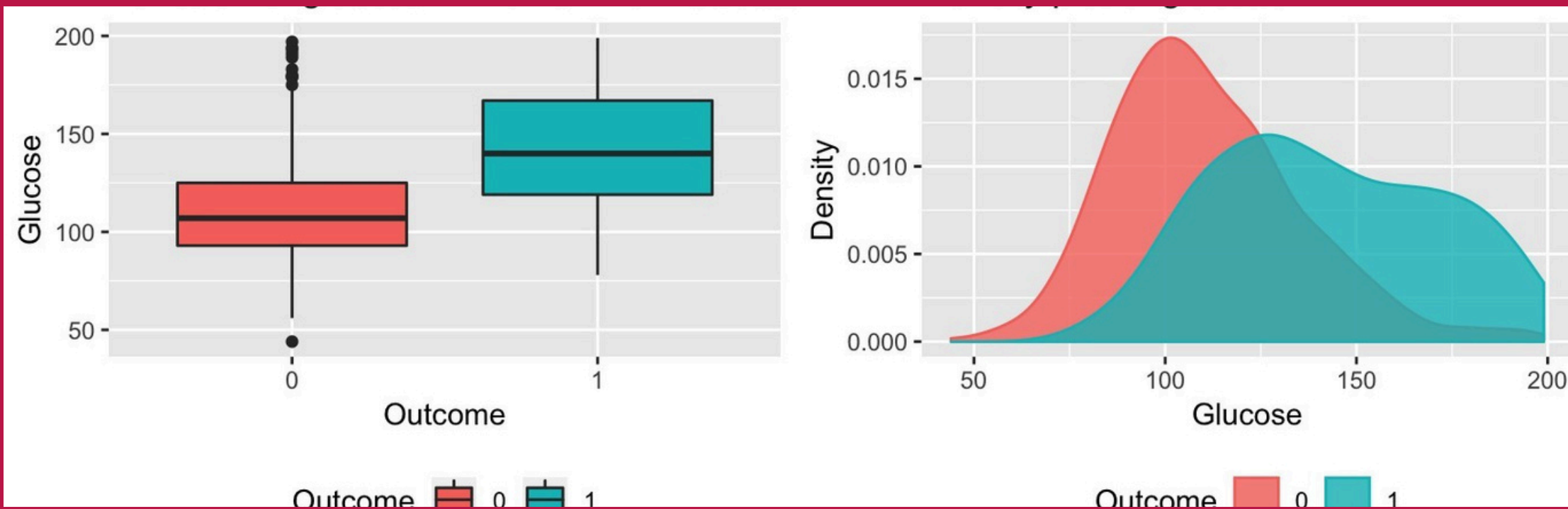
3RD PRESENTATION



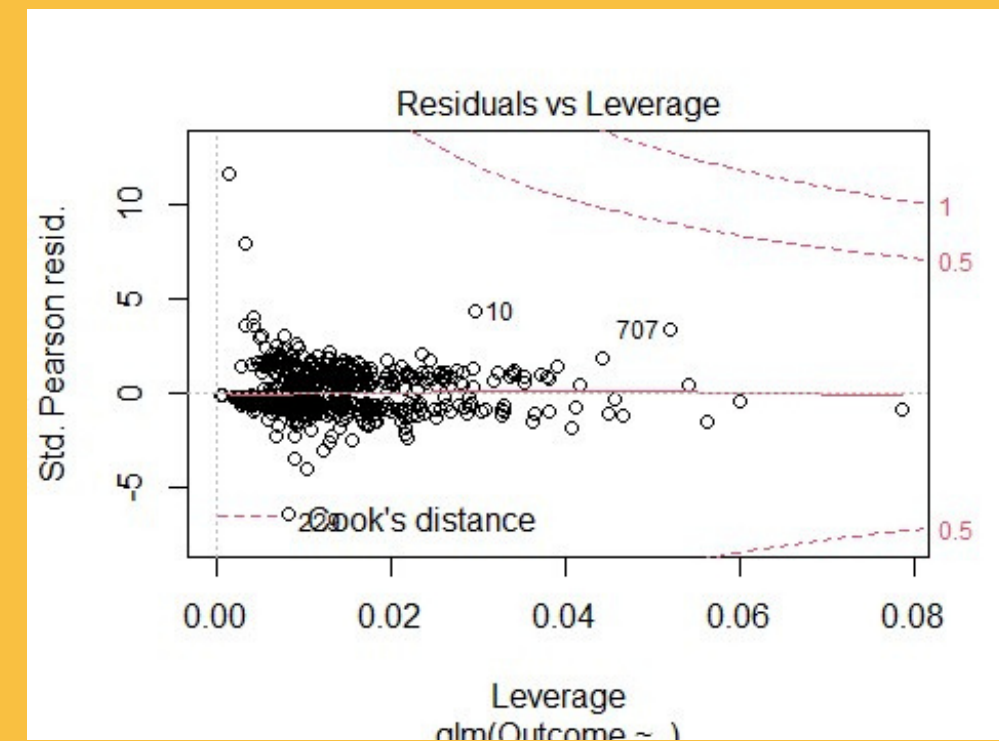
4TH PRESENTATION



5TH PRESENTATION



6TH PRESENTATION

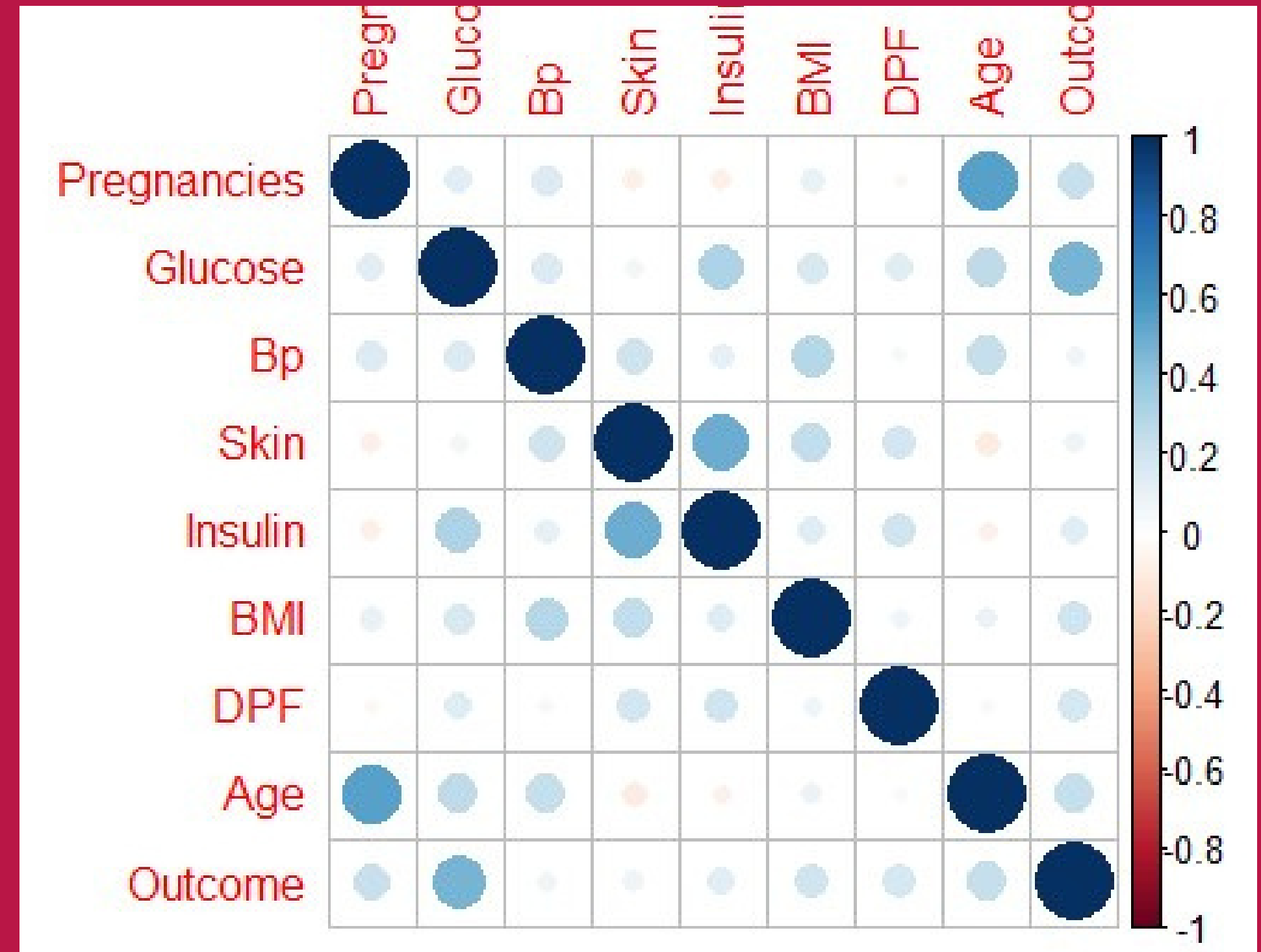


7TH PRESENTATION

PROJECT: PART A

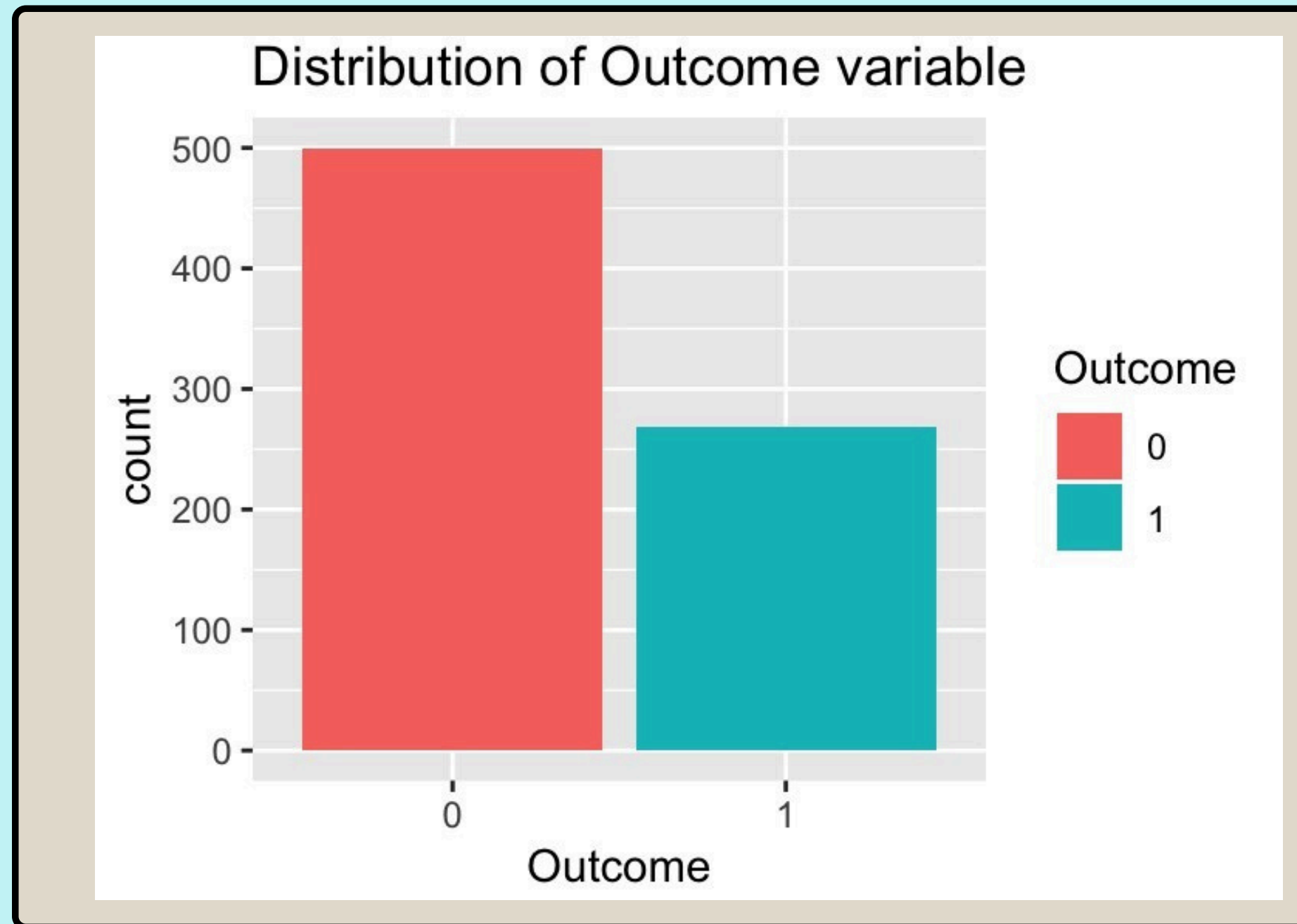
correlation of the model

From the spectrum, it shows that, that the circle with dark blue has a very strong positive correlation, red has a very strong negative correlation and that with white is closer to zero (meaning, there is not much relationship between them). Along the diagonal, we see auto-correlation of the variables correlated with itself which is equal to 1. The off-diagonals are used to compare their correlation strength with the other. Thus the figure shows that Age, glucose level, DPF, and the number of pregnancies both have a significant correlation with the outcomes for diabetes. Also Pregnancies and Age Skin thickness and insulin both have a strong significant correlation.

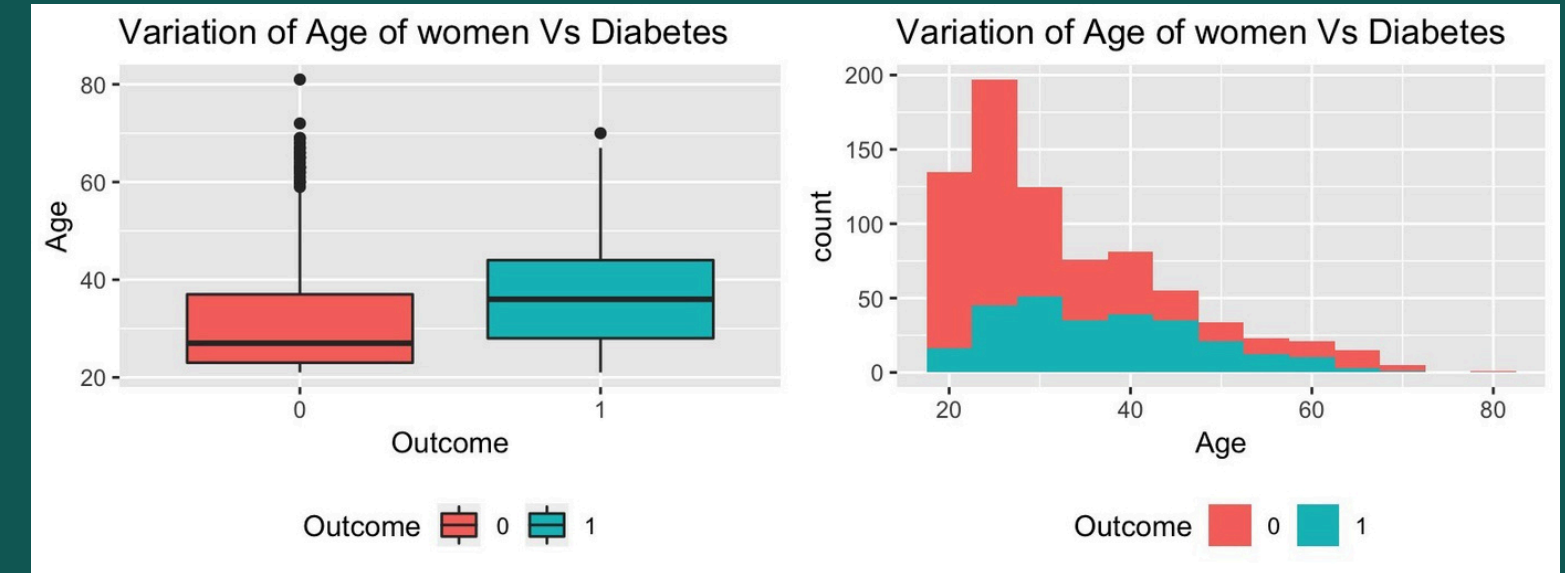
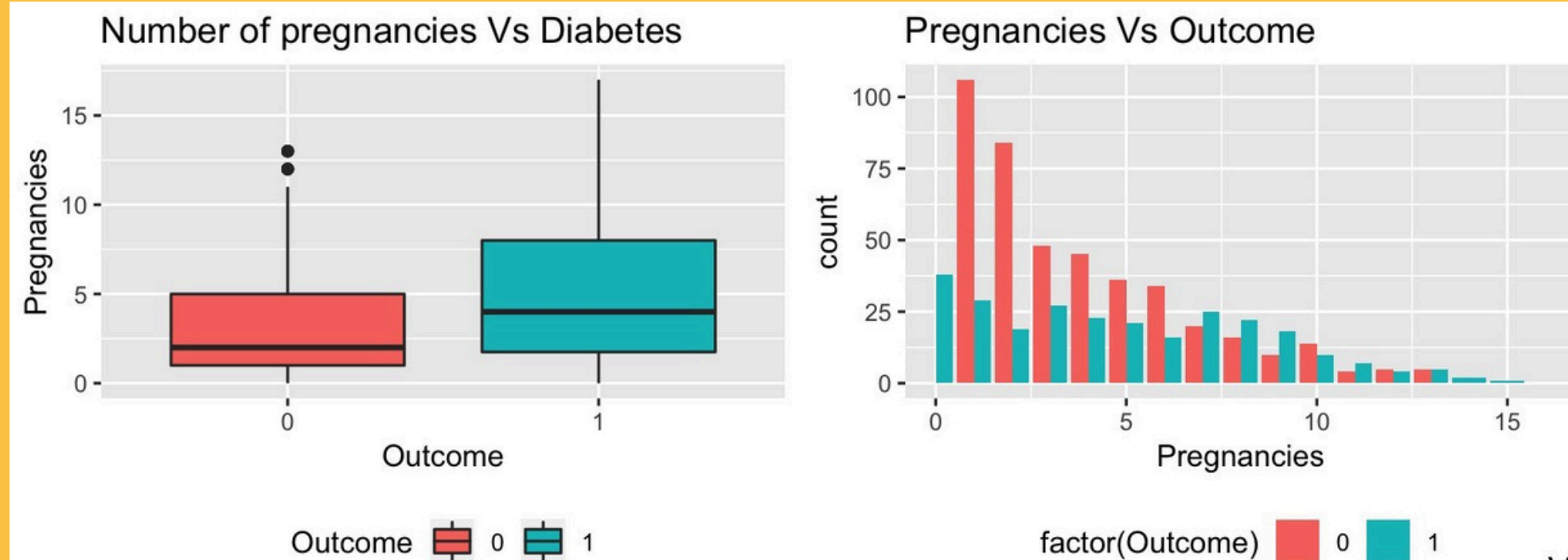


PART B

This data has sample of 768 patients with 268 women who are diagnosed with diabetes showing a higher rate of occurrence of diabetes in the patients holding 35%.

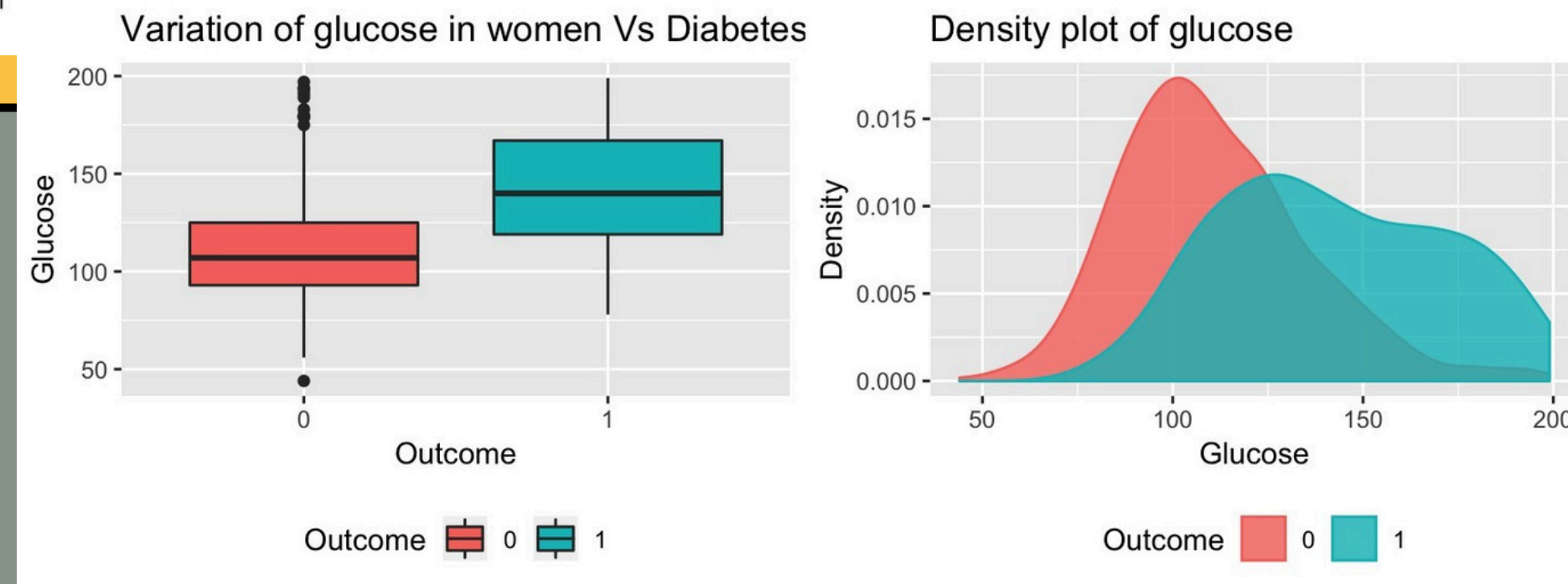


PART C



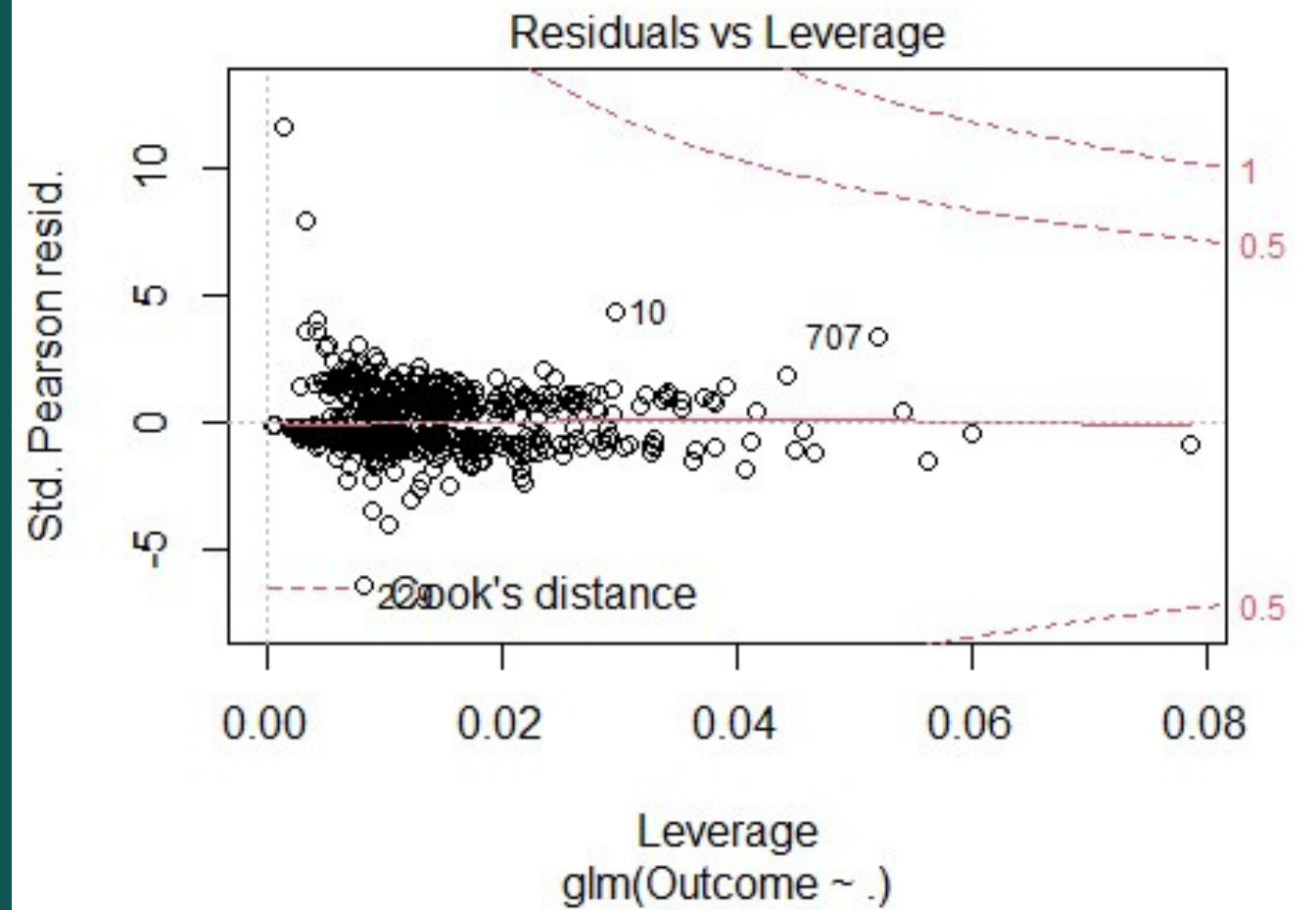
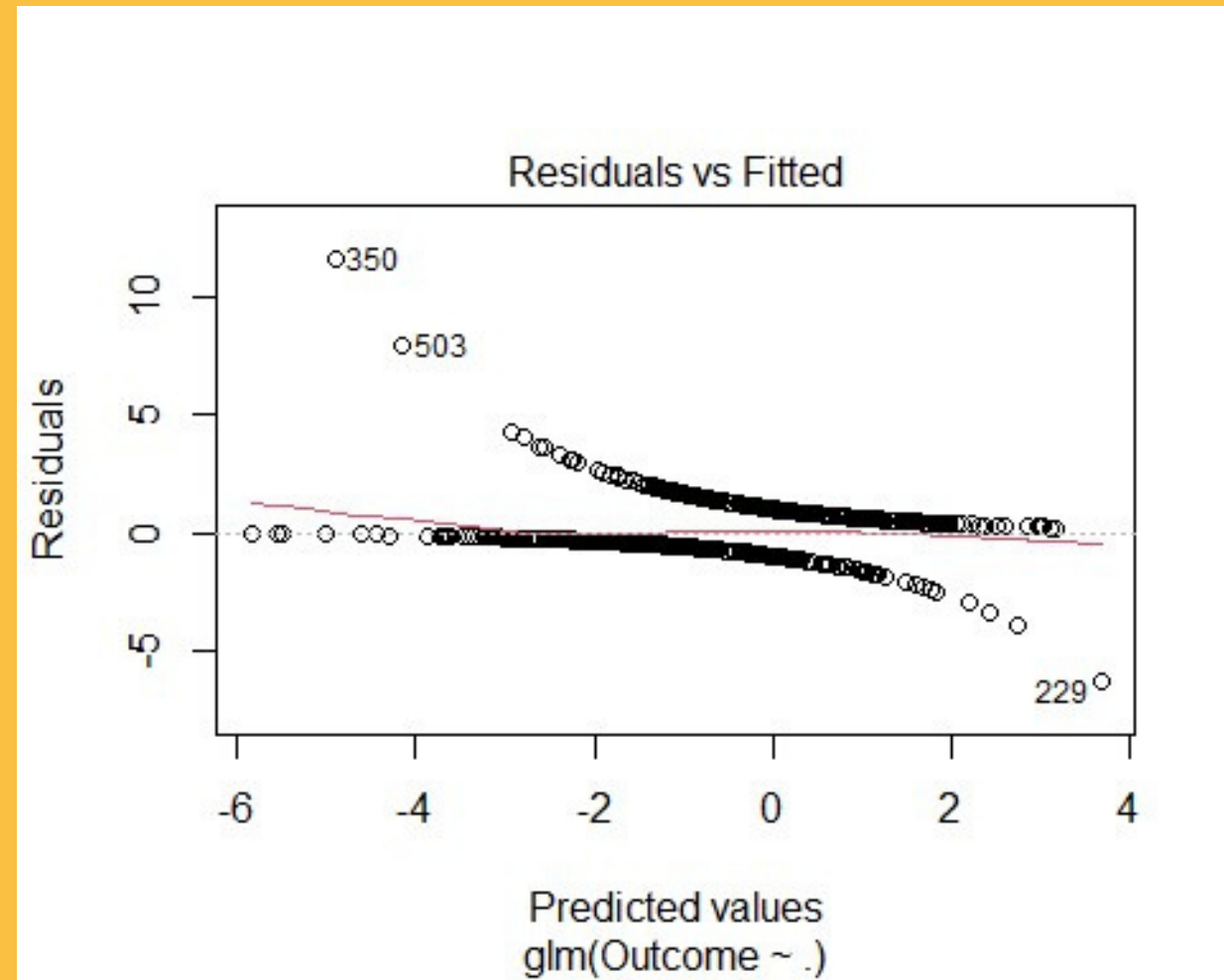
From the figure, the variation of age of women and outcome which is diabetes, there is a higher risk for age between 25 to 40 where there is a prediction of higher diagnosis of diabetes.

The figure provide evidence of women diagnosed with diabetes have pregnancies more than one compared to other women. The histogram shows some different predictions, where there is a relationship between the Outcome and number of pregnancies



Glucose from the figure, shows a significant to women diagnosed with diabetes hence a good response for diabetes.

PART D



Here leverage is a measure of how much an individual observation influence the fit of the model. If there is low leverage where some of our points are from the table,

if you take that model out our fit model is not going to change that much.

If the probability of having diabetes is low, we expect the residuals to be low and is always negative because the probability of diabetes is going to be a positive number and having no diabetes it will be negative. All the values below zero as shown above are going all the cases that the patients have no diabetes. The upper side indicate all the patients who had diabetes. Its interpretation is same as that of a confusion matrix.

**To bring a
transformation
solution using big
data solution**

Let's work

**Together
we can.**

TOGETHER

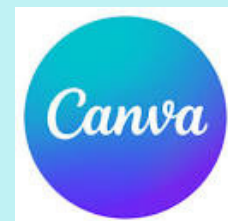
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<https://www.canva.com/design/DAFAR0F2ROY/pIHYKCCQyk61qWWZcYV00A/watch#>