Analiza ~ Sprzedaż w sklepie

Sales-Analyzer

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juliuszlosinski Update README.md — 2aacedf · 41 minutes ago — 19 Commits

Descriptive	Refactoring	1 hour ago
Predictive	Update	45 minutes ago
Resources	Update	2 days ago
README.md	Update README.md	ago

README

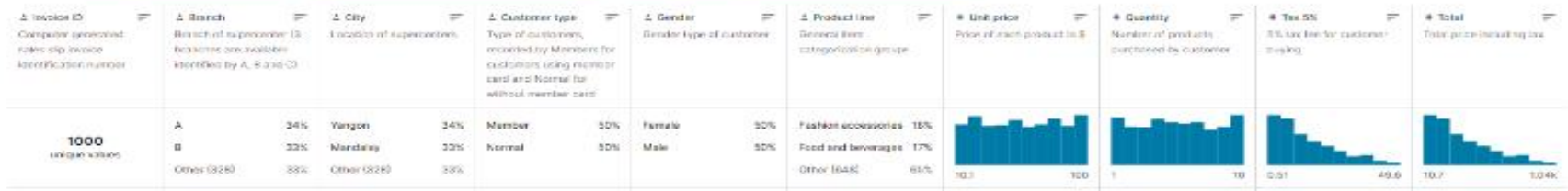
Analyzing sales goals:

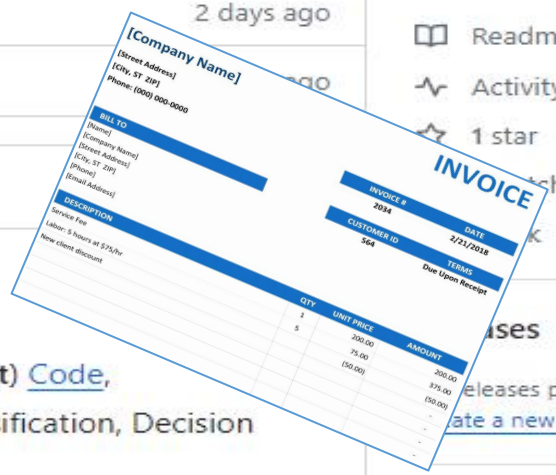
- visualization by using various dashboards in python (**dash, plotly express, matplotlib/ pyplot**) Code,
- making prediction (**classification**) by using linear models and others (Suppor Vector for Classification, Decision Tree Classification and Random Forest Classifaction) Code.

Author of visualization ~ Veronika Hordieieva

Author of predictions ~ Juliusz Łosiński

Data: https://www.kaggle.com/datasets/aungpyaeap/supermarket-sales/





About

Business intelligence analyzer - Supermarket sales.

python | machine-learning | linear-models | scikitlearn-machine-learning | non-linear-models | supervised-learing

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Contributors 2

juliuszlosinski Juliusz Łosiński

VeRonikARoNik

Machine Learning
Software project

PLANNING
Timeline
Board
List
Goals
Issues
Add view

DEVELOPMENT
Code

Project pages
Add shortcut
Project settings

Business Inteligence Project

GROUP BY None Import work Insights View settings

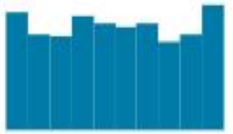
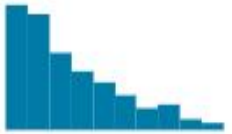
TO DO 3

- Dane sprzedaży z kaggle pobieramy — KAN-2
- Robimy daszboard w pythonie — KAN-4
- Zastosowanie modelu arima, sarima, war do danych? — KAN-6

+ Create issue

IN PROGRESS

DONE

Invoice ID	Branch	City	Customer type	Gender	Product line	Unit price	Quantity	Tax 5%	Total
Computer generated sales slip invoice identification number	Branch of supercenter (3 branches are available identified by A, B and C).	Location of supercenters	Type of customers, recorded by Members for customers using member card and Normal for without member card	Gender type of customer	General item categorization groups	Price of each product in $	Number of products purchased by customer	5% tax fee for customer buying	Total price including tax
1000 unique values	A 34% B 33% Other (328) 33%	Yangon 34% Mandalay 33% Other (328) 33%	Member 50% Normal 50%	Female 50% Male 50%	Fashion accessories 18% Food and beverages 17% Other (648) 65%	 10.1 100	 1 10	 0.51 49.6	 10.7 1.04k
750-67-8428	A	Yangon	Member	Female	Health and beauty	74.69	7	26.1415	548.9715
226-31-3081	C	Naypyitaw	Normal	Female	Electronic accessories	15.28	5	3.82	80.22
631-41-3108	A	Yangon	Normal	Male	Home and lifestyle	46.33	7	16.2155	340.5255
123-19-1176	A	Yangon	Member	Male	Health and beauty	58.22	8	23.288	489.048
373-73-7910	A	Yangon	Normal	Male	Sports and travel	86.31	7	30.2085	634.3785
699-14-3026	C	Naypyitaw	Normal	Male	Electronic accessories	85.39	7	29.8865	627.6165
355-53-5943	A	Yangon	Member	Female	Electronic accessories	68.84	6	20.652	433.692
315-22-5665	C	Naypyitaw	Normal	Female	Home and lifestyle	73.56	10	36.78	772.38
665-32-9167	A	Yangon	Member	Female	Health and beauty	36.26	2	3.626	76.146
692-92-5582	B	Mandalay	Member	Female	Food and beverages	54.84	3	8.226	172.746
351-62-0822	B	Mandalay	Member	Female	Fashion accessories	14.48	4	2.896	60.816
529-56-3974	B	Mandalay	Member	Male	Electronic accessories	25.51	4	5.102	107.142
365-64-0515	A	Yangon	Normal	Female	Electronic accessories	46.95	5	11.7375	246.4875

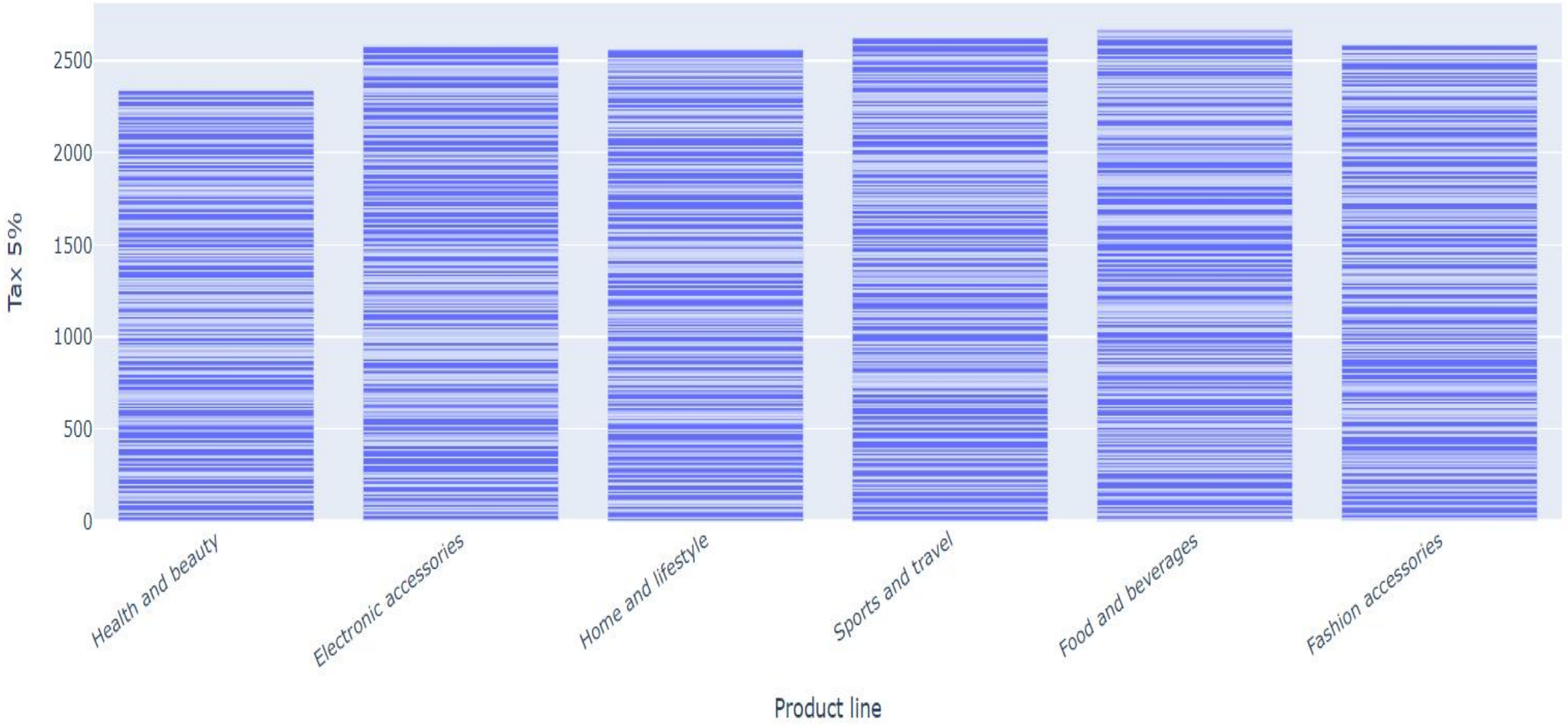
Dashboard supermarket sales

Date | Tax 5% | Scatter

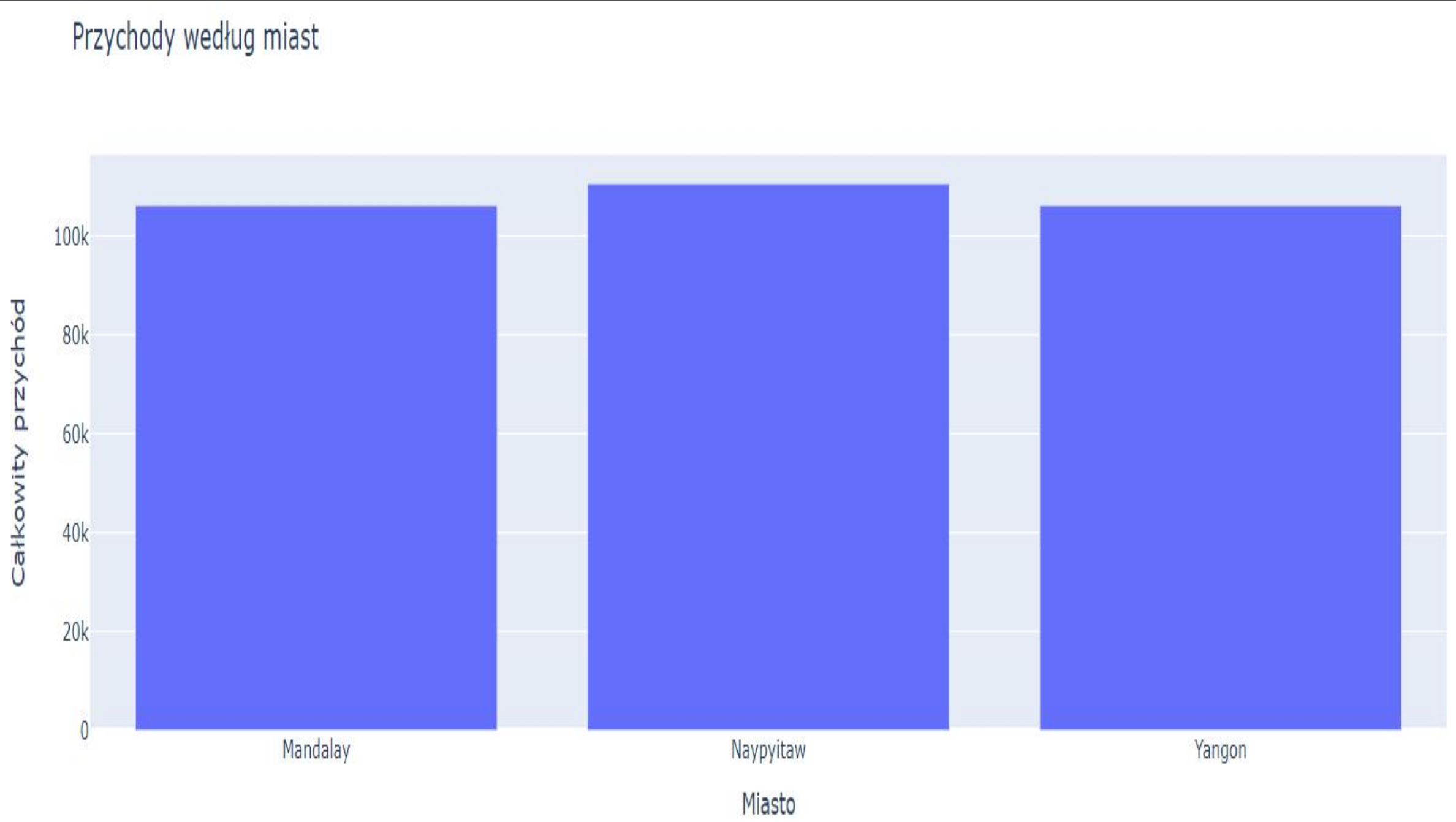
Product line

Tax 5%

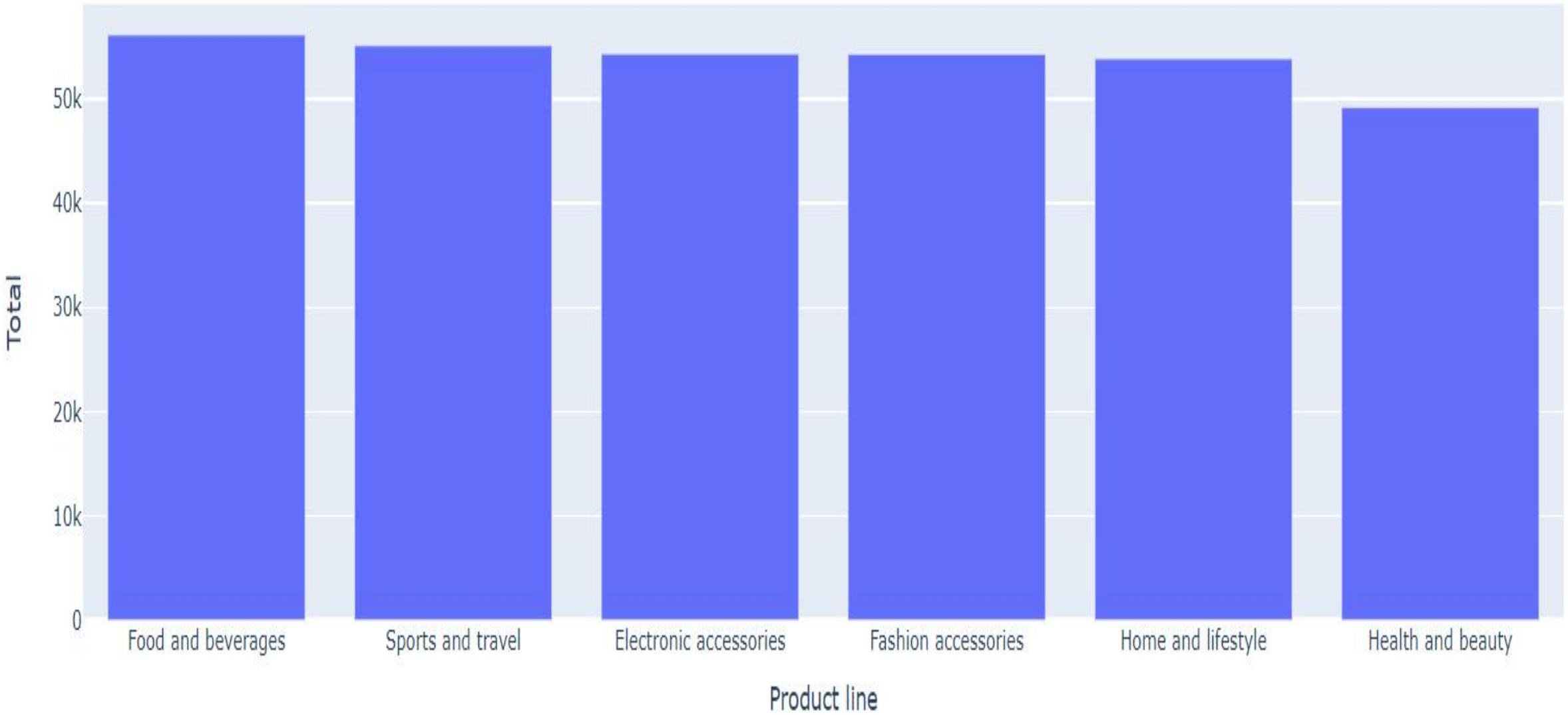
Bar



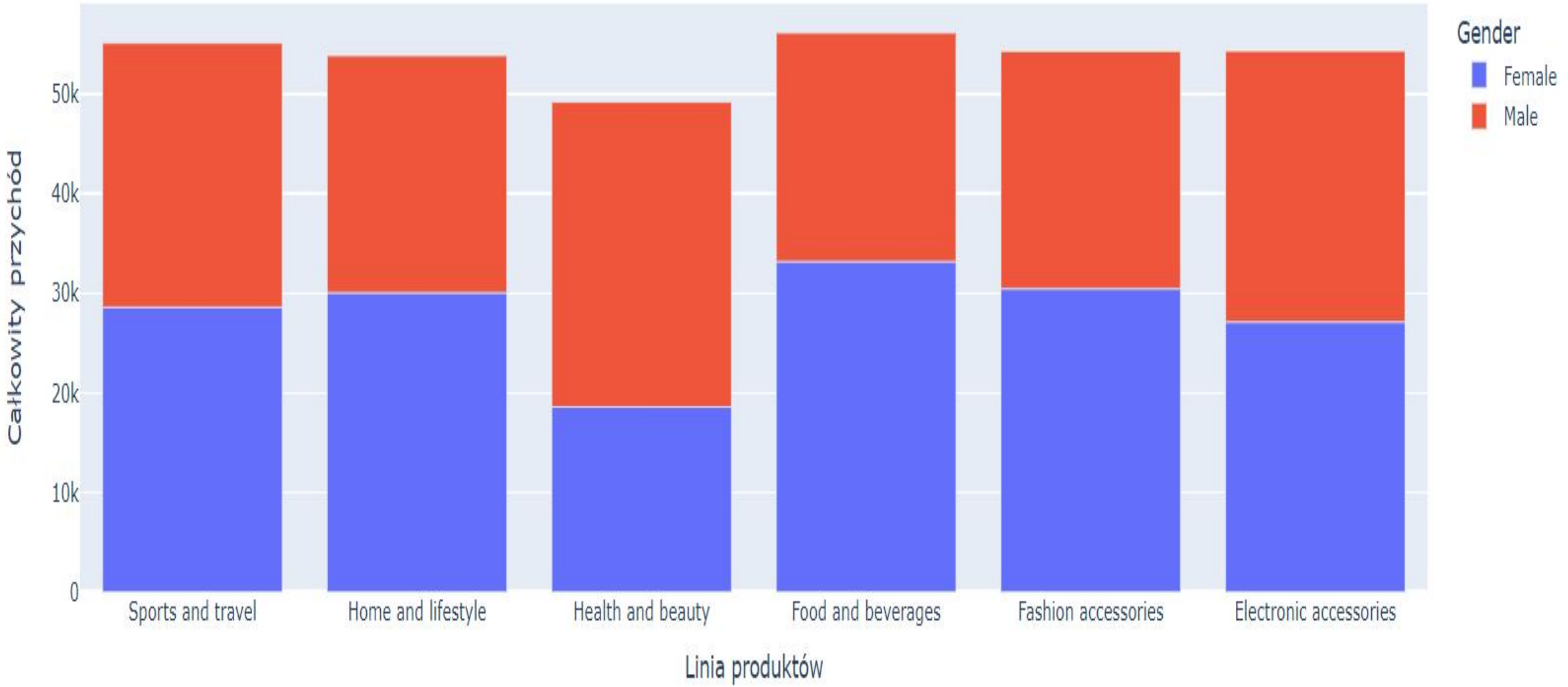
Invoice ID	Branch	City	Customer ...	Gender	Product Line	Unit Price	Quantity	Tax 5%	Total	Date	Time	P...
750-67-8428	A	Yangon	Member	Female	Health and beauty	74.69	7	26.1415	548.9715	2019-01-...	13:08	E.
226-31-3081	C	Naypyitaw	Normal	Female	Electronic accesso...	15.28	5	3.82	80.22	2019-03-...	10:29	C.
631-41-3108	A	Yangon	Normal	Male	Home and lifestyle	46.33	7	16.2155	340.5255	2019-03-...	13:23	Cr
123-19-1176	A	Yangon	Member	Male	Health and beauty	58.22	8	23.288	489.048	2019-01-...	20:33	E.
373-73-7910	A	Yangon	Normal	Male	Sports and travel	86.31	7	30.2085	634.3785	2019-02-...	10:37	E.
699-14-3026	C	Naypyitaw	Normal	Male	Electronic accesso...	85.39	7	29.8865	627.6165	2019-03-...	18:30	E.
355-53-5943	A	Yangon	Member	Female	Electronic accesso...	68.84	6	20.652	433.692	2019-02-...	14:36	E.
315-22-5665	C	Naypyitaw	Normal	Female	Home and lifestyle	73.56	10	36.78	772.38	2019-02-...	11:38	E.


Przychody według miast
Całkowity przychód
100k
80k
60k
40k
20k
0
Mandalay
Naypyitaw
Yangon
Miasto

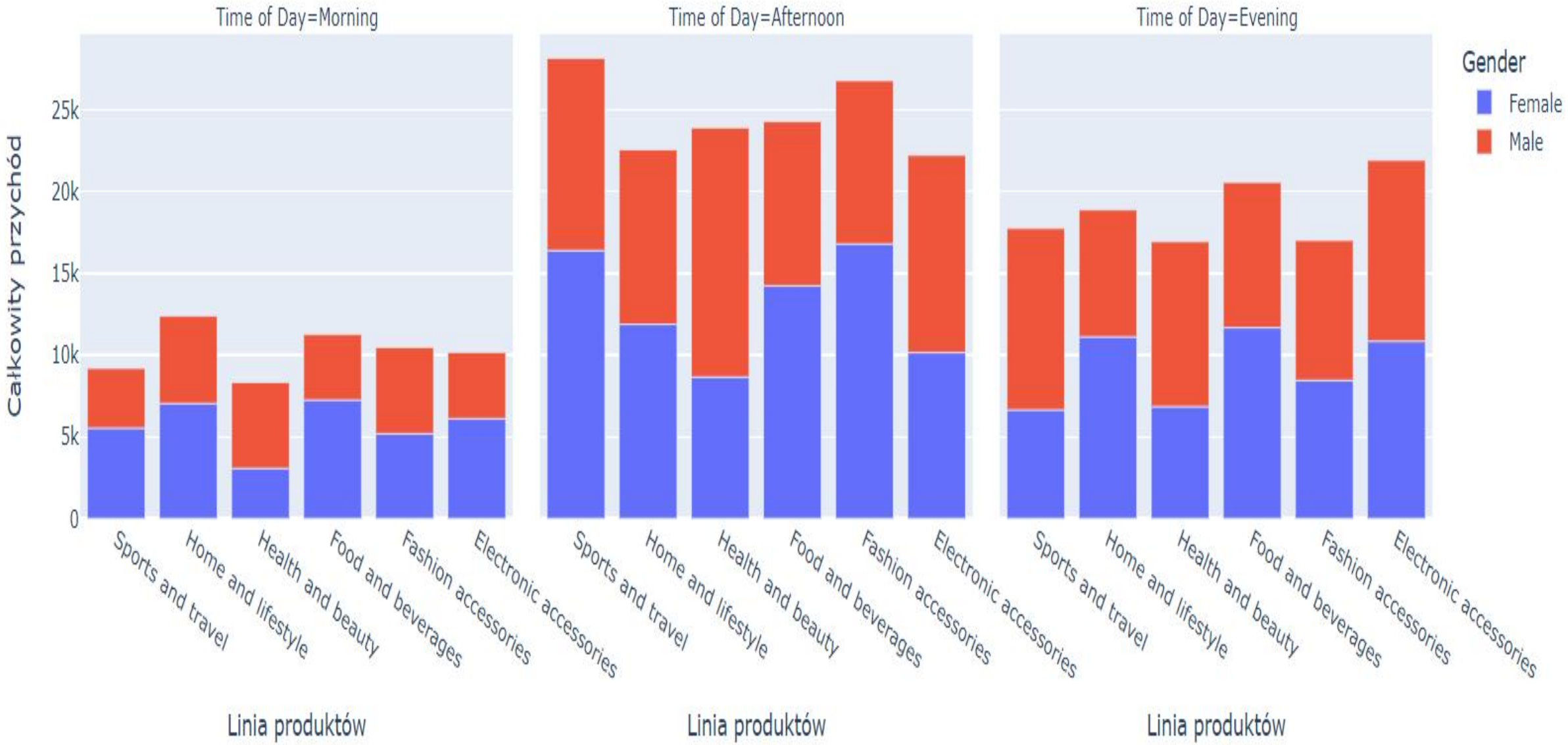
Sprzedaż produktów według przychodu



Sprzedaż produktów według przychodu z podziałem na płeć



Sprzedaż produktów według przychodu z podziałem na płeć i czas dnia



Sprzedaż według dni tygodnia

Średnia sprzedaży
322.97

Mediana cen produktów
55.23

Wariancja dziennych sprzedaży
2333682.75

Odchylenie standardowe sprzedaży
245.89

Kwartyle sprzedaży
25%: 124.42, 50% (mediana): 253.85, 75%: 471.35

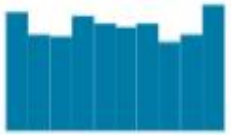
90-ty Percentyl sprzedaży
718.91

Rozstęp sprzedaży
1031.97

Skosność sprzedaży
0.89

Kurtoza sprzedaży
-0.08

GENDER CLASSIFICATION

Invoice ID Computer generated sales slip invoice identification number Q1	Branch Branch of supercenter (3 branches are available identified by A, B and C). Q2	City Location of supercenters Q3	Customer type Type of customers, recorded by Members for customers using member card and Normal for without member card Q4	Gender Gender type of customer y	Product line General item categorization groups Q5	Unit price Price of each product in $ Q6	Quantity Number of products purchased by customer Q7	Tax 5% 5% tax fee for customer buying Q8	Total Total price including tax Q9
1000 unique values	A 34% B 33% Other (328) 33%	Yangon 34% Mandalay 33% Other (328) 33%	Member 50% Normal 50%	Female 50% Male 50%	Fashion accessories 18% Food and beverages 17% Other (648) 65%	 10.1 100	 1 10	 0.51 49.6	 10.7 1.04k
750-67-8428	A	Yangon	Member	Female 0	Health and beauty	74.69	7	26.1415	548.9715
226-31-3081	C	Naypyitaw	Normal	Female 0	Electronic accessories	15.28	5	3.82	80.22
631-41-3108	A	Yangon	Normal	Male 1	Home and lifestyle	46.33	7	16.2155	340.5255
123-19-1176	A	Yangon	Member	Male 1	Health and beauty	58.22	8	23.288	489.048
373-73-7910	A	Yangon	Normal	Male 1	Sports and travel	86.31	7	30.2085	634.3785
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355-53-5943	A	Yangon	Member	Female 0	Electronic accessories	68.84	6	20.652	433.692
315-22-5665	C	Naypyitaw	Normal	Female 0	Home and lifestyle	73.56	10	36.78	772.38
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351-62-0822	B	Mandalay	Member	Female 0	Fashion accessories	14.48	4	2.896	60.816
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365-64-0515	A	Yangon	Normal	Female 0	Electronic accessories	46.95	5	11.7375	246.4875

```
Classification report:
              precision    recall  f1-score   support

           0       1.00      1.00      1.00       148
           1       1.00      1.00      1.00       152

    accuracy                           1.00       300
   macro avg       1.00      1.00      1.00       300
weighted avg       1.00      1.00      1.00       300

Confusion matrix:
[[148   0]
 [  0 152]]
Training score:
100.0
Accuracy score:
1.0
y_predicted:
[1 1 0 1 1 0 1 0 0 0 0 1 1 1 0 1 1 1 1 1 0 0 0 0 1 1 0 1 0 0 0 0 1 0 0 0 0
 0 1 1 1 1 1 0 0 0 0 0 0 1 0 1 1 1 0 0 1 0 1 1 0 1 1 1 1 0 1 1 1 0 1 1 1 1 1
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 0 0 1 0]
y_test:
[1 1 0 1 1 0 1 0 0 0 0 1 1 1 0 1 1 1 1 1 0 0 0 0 1 1 0 1 0 0 0 0 1 0 0 0 0
 0 1 1 1 1 1 0 0 0 0 0 0 1 0 1 1 1 0 0 1 0 1 1 0 1 1 1 1 0 1 1 1 0 1 1 1 1 1
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 0 1 1 1 0 1 1 1 1 0 1 1 0 0 1 1 0 0 0 0 1 1 0 0 0 1 1 1 1 1 1 0 1 1 0 0 1 0
 0 0 1 0]
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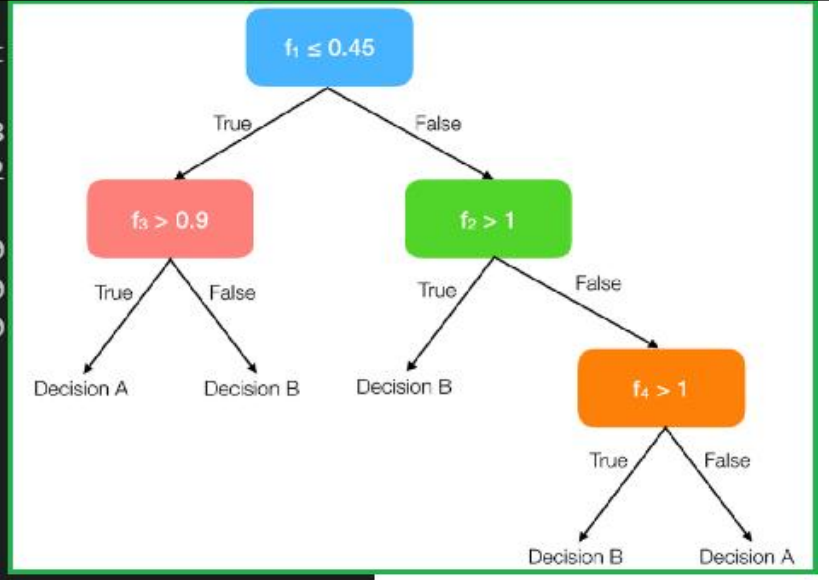

Decision Tree Classification