Unique\_Products = Dataset['Product Name'].unique()

No\_of\_Unique\_Products = Dataset['Product Name'].nunique()

print(f"There are {No\_of\_Unique\_Products} Unique Products :-\n{Unique\_Products}")

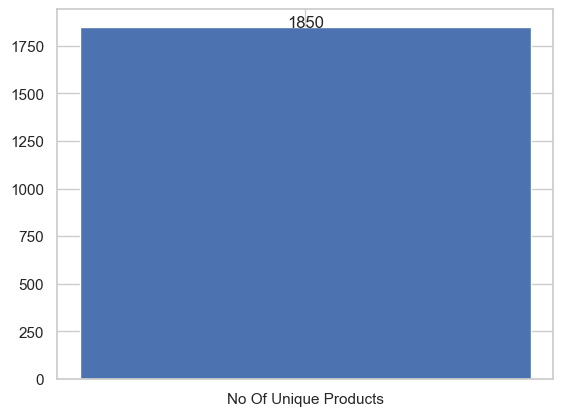
plt.bar(

x=["No Of Unique Products"], height=[len(Unique\_Products)], width=0.5

)

for i, v in enumerate([len(Unique\_Products)]):

plt.text(i, v + 0.5, str(v), ha="center")

plt.show()

Count\_of\_Each\_Product = Dataset['Product Name'].value\_counts()

Data = Count\_of\_Each\_Product[:10]

Data\_df = pd.DataFrame({"Product Name": Data.index, "Count": Data.values})

plt.figure(figsize=(20, 10))

ax = sns.barplot(data=Data\_df, x="Product Name", y="Count", hue="Product Name")

for p in ax.patches:

ax.annotate(

format(p.get\_height(), ".0f"),

(p.get\_x() + p.get\_width() / 2.0, p.get\_height()),

ha="center",

va="center",

xytext=(0, 10),

textcoords="offset points",

fontsize=12,

color="black",

)

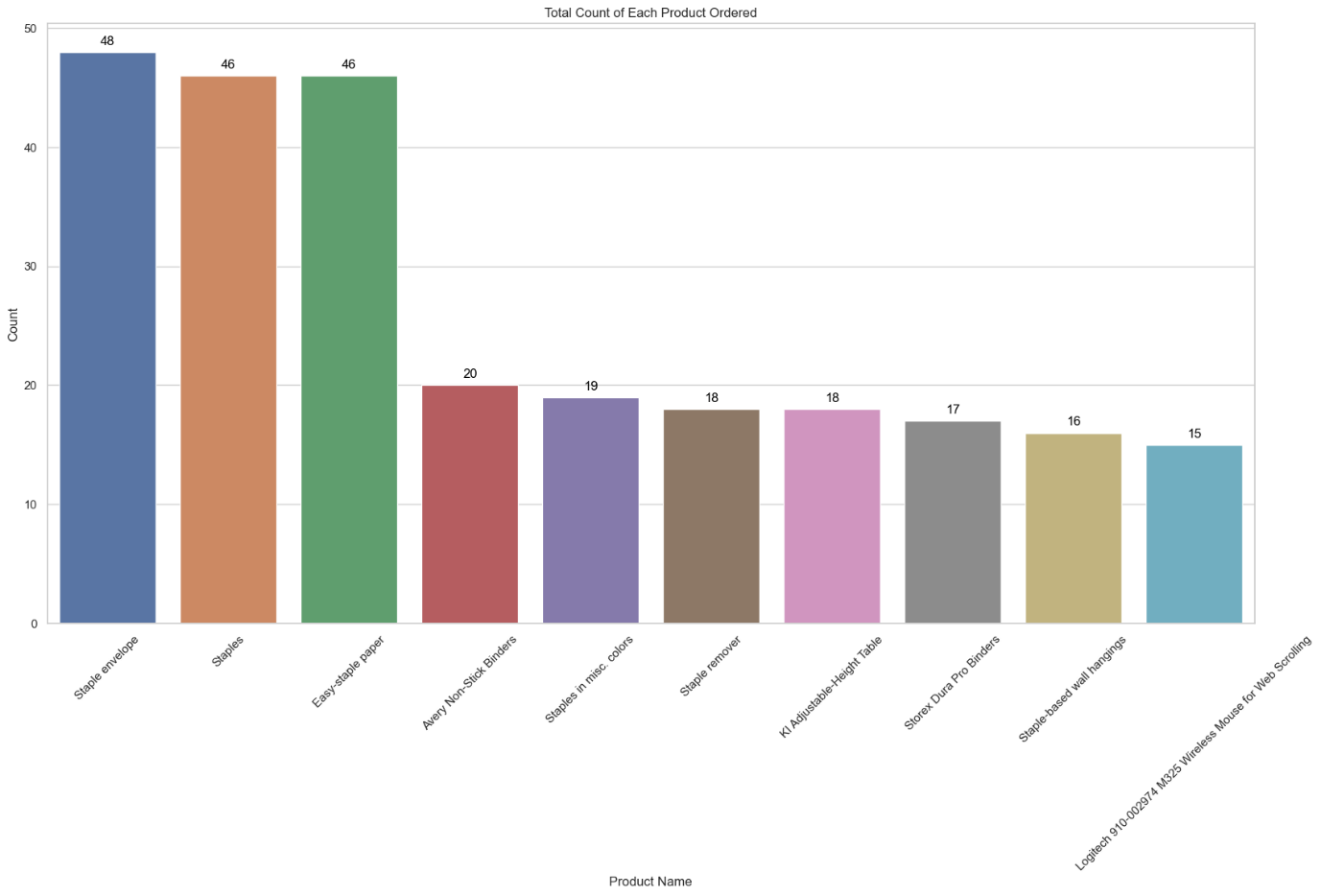
plt.xticks(rotation=45)

plt.xlabel("Product Name")

plt.ylabel("Count")

plt.title("Total Count of Each Product Ordered")

plt.show()



Category\_wise\_Sales\_and\_profit = Dataset.groupby("Sub-Category")[["Profit", "Sales"]].sum()

print(Category\_wise\_Sales\_and\_profit)

ax = Category\_wise\_Sales\_and\_profit.plot(kind="line", figsize=(12, 6))

plt.title("Category-wise Sales and Profit")

plt.xlabel("Sub-Category")

plt.ylabel("Amount")

plt.grid(True)

plt.legend(loc="upper right")

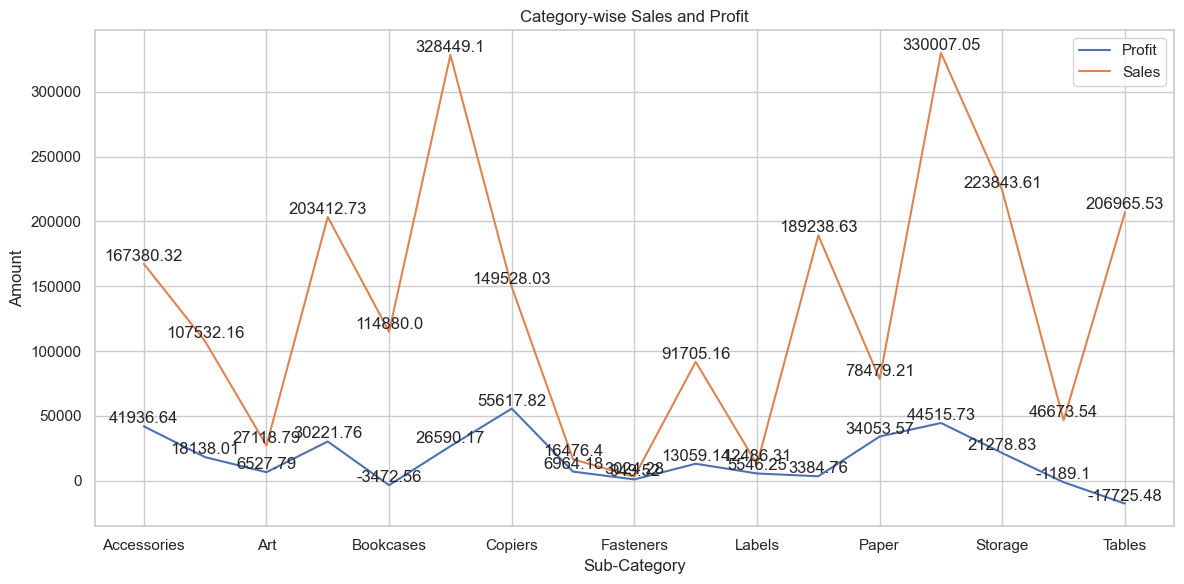
for column in Category\_wise\_Sales\_and\_profit.columns:

for index, value in enumerate(Category\_wise\_Sales\_and\_profit[column]):

ax.text(index, value, str(round(value, 2)), ha="center", va="bottom")

plt.tight\_layout()

plt.show()



Technology\_Distribution = (

Dataset[Dataset["Category"] == "Technology"]["Sub-Category"]

.value\_counts()

.rename("Counts")

)

total\_technology = Technology\_Distribution.sum()

Technology\_Distribution\_with\_percentage = (

Technology\_Distribution / total\_technology

) \* 100

Technology\_Distribution\_with\_percentage = (

Technology\_Distribution\_with\_percentage.rename("Percentage")

)

Distribution\_of\_Technology = pd.concat(

[Technology\_Distribution, Technology\_Distribution\_with\_percentage], axis=1

)

print(Distribution\_of\_Technology)

plt.figure(figsize=(10, 6))

plt.pie(

Distribution\_of\_Technology["Counts"],

labels=Distribution\_of\_Technology.index,

autopct="%1.1f%%",

startangle=140,

)

plt.title("Distribution of Technology by Sub-Category")

plt.axis("equal")

plt.show()

