**MUSIC AND MENTAL HEALTH FINAL**

**#choice1: Age and Hours Analysis**

**SOURCE CODE**

import matplotlib.pyplot as plt

import pandas as pddef age\_hours():

file\_path = r'C:\Users\Hp\Desktop\mh.csv'

df = pd.read\_csv(file\_path, usecols=["Age", "Hours per day"])

df\_sorted = df.sort\_values(by=['Age'])

class\_intervals = [11, 21, 31, 41, 51, 61, 71, 81, 91]

df\_sorted['Age Group'] = pd.cut(

df\_sorted['Age'],

bins=class\_intervals,

labels=['10-20', '20-30', '30-40', '40-50', '50-60', '60-70', '70-80', '80-90']

)

age\_group\_hours = df\_sorted.groupby('Age Group')['Hours per day'].mean()

age\_group\_hours.plot(kind='pie', autopct='%1.1f%%', startangle=140)

plt.ylabel('')

plt.title("Average Hours Spent per Day by Different Age Groups")

plt.legend(loc="best", title="Age Groups")

plt.show()

if \_\_name\_\_ == "\_\_main\_\_":

age\_hours()

**OUTPUT**



**# Choice #2: Favorite Genre Analysis**

**SOURCE CODE**

import matplotlib.pyplot as plt

import pandas as pd

def fav\_genre():

file\_path = r'C:\Users\Hp\Desktop\mh.csv'

df1 = pd.read\_csv(file\_path, usecols=["Fav genre"])

df2 = pd.DataFrame(df1)

a = df2['Fav genre'].value\_counts()

a.plot(kind="bar", color=["b", "m"])

plt.title("Favorite Genre")

plt.show()

if \_\_name\_\_ == "\_\_main\_\_":

fav\_genre()

**OUTPUT**

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**# Choice #:3 Most Used App (Primary Streaming Service)**

**SOURCE CODE**

import matplotlib.pyplot as plt

import pandas as pd

def app\_preference():

file\_path = r'C:\Users\Hp\Desktop\mh.csv'

df1 = pd.read\_csv(file\_path, usecols=["Primary streaming service"])

counting = df1['Primary streaming service'].value\_counts()

counting.plot(kind="bar", color=["b", "c"])

plt.legend()

plt.title("Favorite Streaming Service")

plt.show()

if \_\_name\_\_ == "\_\_main\_\_":

app\_preference()

**OUTPUT**

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**# Choice #4: Music preference While Working**

**SOURCE CODE**

import matplotlib.pyplot as plt

import pandas as pd

def music\_preference():

file\_path = r'C:\Users\Hp\Desktop\mh.csv'

df1 = pd.read\_csv(file\_path, usecols=["While working"])

df2 = pd.DataFrame(df1)

a = df2['While working'].value\_counts()

a.plot(kind="pie", autopct='%1.1f%%')

plt.title("Preference of Music While Working")

plt.show()

if \_\_name\_\_ == "\_\_main\_\_":

music\_preference()

**OUTPUT**

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**# Choice #5: Anxiety Analysis**

**SOURCE CODE**

import matplotlib.pyplot as plt

import pandas as pd

def anxiety():

file\_path = r'C:\Users\Hp\Desktop\mh.csv'

df1 = pd.read\_csv(file\_path, usecols=["Anxiety"])

df2 = pd.DataFrame(df1)

b = df2['Anxiety'].value\_counts()

b.plot(kind="barh")

plt.legend()

plt.title("Effectiveness of Music on Anxiety")

plt.show()

if \_\_name\_\_ == "\_\_main\_\_":

anxiety()

**OUTPUT**

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**# Choice #6: Depression Analysis**

**SOURCE CODE**

import matplotlib.pyplot as plt

import pandas as pd

def depression():

file\_path = r'C:\Users\Hp\Desktop\mh.csv'

df1 = pd.read\_csv(file\_path, usecols=["Depression"])

df2 = pd.DataFrame(df1)

a = df2['Depression'].value\_counts()

a.plot(kind="pie", autopct='%1.1f%%')

plt.title("Effectiveness of Music on Depression")

plt.show()

if \_\_name\_\_ == "\_\_main\_\_":

depression()

**OUTPUT**

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**# Choice #7: Insomnia Analysis**

**SOURCE CODE**

import matplotlib.pyplot as plt

import pandas as pd

def insomnia():

file\_path = r'C:\Users\Hp\Desktop\mh.csv'

df1 = pd.read\_csv(file\_path, usecols=["Insomnia"])

df2 = pd.DataFrame(df1)

c = df2['Insomnia'].value\_counts()

c.plot(kind="pie", autopct='%1.1f%%')

plt.title("Effectiveness of Music on Insomnia")

plt.show()

if \_\_name\_\_ == "\_\_main\_\_":

insomnia()

**OUTPUT**

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**# Choice #8: OCD Analysis**

**SOURCE CODE**

import matplotlib.pyplot as plt

import pandas as pd

def ocd():

file\_path = r'C:\Users\Hp\Desktop\mh.csv'

df1 = pd.read\_csv(file\_path, usecols=["OCD"])

df2 = pd.DataFrame(df1)

d = df2['OCD'].value\_counts()

d.plot(kind="bar", color=["g", "r"])

plt.legend()

plt.title("Effectiveness of Music on OCD")

plt.show()

if \_\_name\_\_ == "\_\_main\_\_":

ocd()

**OUTPUT**

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**# Choice #9: People's Opinion on Effectiveness of Music**

**SOURCE CODE**

import matplotlib.pyplot as plt

import pandas as pd

def music\_effect():

file\_path = r'C:\Users\Hp\Desktop\mh.csv'

df1 = pd.read\_csv(file\_path, usecols=["Music effects"])

df2 = pd.DataFrame(df1)

counts = df2['Music effects'].value\_counts()

counts.plot(kind='pie', autopct='%1.1f%%')

plt.title("Population's Opinion on Effectiveness of Music")

plt.show()

if \_\_name\_\_ == "\_\_main\_\_":

music\_effect()

**OUTPUT**

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