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Business Finance

BFIN 2201

Seton Hall University

Homework 6

Personal Budget

Free cash flow is the amount of cash that a company has left over after it has paid for all of its expenses. In other words, it is the amount of money that can be reinvested in naew project or paid out to investors without having to expand operations or running down its existing operations. Discretionary income is equivalent for individuals. Discretionary income is defined as income available for spending after subtracting taxes and essential expenses to maintain an individual's current standard of living. In this assignment, you will be asked to think through your personal spending and how you might construct a budget after you graduate. You will need to consider both required expenses (e.g. taxes, loans, housing costs, etc.), savings, and discretionary spending.

According to the US Department of Education, the average salary of a Stillman School of Business finance major three years after graduation was about 65,600 dollars. Assume that is the salary you will make after graduation. Answer the following questions based on the lifestyle you'd like to live after graduation.

1. How much will you pay for health care each year ?

In [1]:
```
# Seton Hall faculty pay $136.00 per month in 2022.
# Constant variable
monthly_health_care = 136.00

# Define the number of payment period in the year is monthly.
num_period = 1 * 12

# the total expected cost for health care annually
annual_health_care = monthly_health_care * num_period
print("The prospect will pay $" + str(round(annual_health_care, 2)) + " for health care each year.")
```

```
The prospect will pay $1632.0 for health care each year.
```

2. How much do you plan to save for retirement each year?

In [2]:
```
# Define how much you will save each month
monthly_saving = float(input("How much do you plan to save for retirement each month: $"))

# Define the number of payment period in the year is monthly
num_period = 1 * 12

# Calculate the total expected saving for retirement each year
annual_saving = monthly_saving * num_period
print("The prospect plans to save $" + str(round(annual_saving, 2)) + " for retirement each year.")
```

```
How much do you plan to save for retirement each month: $300
The prospect plans to save $3600.0 for retirement each year.
```

3. What is your taxable income for federal income taxes, NJ state income taxes, and FICA?

In [3]:
```
# Average salary of a Stillman School of Business finance major three years after graduation is $65,600.
# Constant variable
salary = 65600

# Calculate the federal income tax
federal_income_tax = (9950 * 0.1) + ((40525 - 9951) * 0.12) + ((salary - 40526) * 0.22)

# Calculate the NJ income tax
NJ_income_tax = (20000 * 0.014) + ((35000-20001) * 0.0175) + ((40000 - 35001) * 0.035) + ((salary - 40001) * 0.05525)

# Calculate the FICA tax rate
FICA = 0.0765 * salary

print("The prospect will pay $" + str(round(federal_income_tax, 2)) + " in federal income tax.")
print("The prospect will pay $" + str(round(NJ_income_tax, 2)) + " in NJ state income tax.")
print("The prospect will pay $" + str(round(FICA, 2)) + " in FICA tax.")
```

```
The prospect will pay $10180.16 in federal income tax.
The prospect will pay $2131.79 in NJ state income tax.
The prospect will pay $5018.4 in FICA tax.
```

4. What is your total amount federal income tax, NJ state income tax, and FICA taxes? What is your average tax rate (combined for all three taxes)?

In [4]:
```
total_tax = federal_income_tax + NJ_income_tax + FICA

print("The prospect will pay $" + str(round(total_tax, 2)) + " for taxes on average.")
```

```
The prospect will pay $17330.35 for taxes on average.
```

5. What will be your monthly take-home pay (after health care, retirement savings, and taxes)?

In [5]:
```
take_home_pay = ((salary - federal_income_tax - NJ_income_tax - FICA) / 12) - monthly_saving - monthly_health_care

print("The prospect will have a take home pay of $" + str(round(take_home_pay, 2)) + " each month.")
```

```
The prospect will have a take home pay of $3586.47 each month.
```

6. List and estimate your essential per month. These are expenses that are necessary for living and to pay off debts. Example include rent, student or car loan payments, car insurance, utilities, groceries, etc.

In [6]:
```
rent = 1200.00
grocery = 221.00
utilities = 80.00
cell_phone = 50.00
student_loan = 250.00
car_loan = 526.00
car_insurance = 126.00

n_monthly_expense = rent + grocery + utilities + cell_phone + student_loan + car_loan + car_insurance
print("The prospect will have to pay $" + str(round(n_monthly_expense, 2)) + " each month in necessary expenses.")
```

```
The prospect will have to pay $2453.0 each month in necessary expenses.
```

7. List and estunate your discretionary purchases per month. These purchases are expenses you don't need to survive but bring you joy. Examples include gym fees, salons, movies, streaming services, video games, vacations, etc.

In [7]:
```
gym = 25.00
barber = 40.00
streaming_services = 6.00
vacation_budget = 100.00
shopping = 150.00
portfolio = 100.00
online_courses = 60.00

d_monthly_expense = gym + barber + streaming_services + vacation_budget + shopping + portfolio + online_courses
print("The prospect will have to pay $" + str(round(d_monthly_expense, 2)) + " each month in discretionary expenses.")
```

```
The prospect will have to pay $481.0 each month in discretionary expenses.
```

8. List and estimate the money you plan to save for large future purchases. This savings can be for large purchase you expect to make at some point in the future. Examples include saving for a down payment on a house, buying a car, saving for graduate school, etc.

In [8]:
```
down_payment = 90000 / 12
car_payment = 23000 / 12
graduate_school = 50000 / 12

large_f_purchase = down_payment + car_payment + graduate_school
print("The prospect will have to save $"+ str(round(large_f_purchase, 2)) + " for large future purchases.")
```

```
The prospect will have to save $13583.33 for large future purchases.
```

9. Do you think the budget you designed is realistic? Why or why not.

No, the budget I have designed is not realistic because it does not anticipate revenue from other sources, it does not account for fluctuation in pricing, and the prospect is in the negative. In order to create a realistic budget, the prospect will have to deduce expenses by cutting items from the discretionary purchases or necessary purchases list. At first inspection, the prospect will have a negative balance in their checkings account. In order to try and balance income and expenses, the prospect can eliminate the potential of any large purchases like a house, a car, or going to graduate school. An argument could be made that the individual should start saving for large purchases because it is the intelligent financial decision. However, the prospect does not produce enough income at this time to make large purchases. The prospect can save but the saving will be incremental. Instead of trying to accumulate 90000, 23000, or 50000 in one year, the prospect should stretch the duration of his saving plan for 5 to 10 years. They should put more money into the large future purchase that he or she is likely to make sooner. Another way to reduce cost would be to find ways to reduce disrectionary purchases by learning to cut hairor or working out at home without equipment. In addi tion, the prospect may not have to incorporate specific expenses like car payment if they have a car. The prospect can reduce essential purchases like groceries by buying less or reducing savings for vacation.

10. What did you learn from this assignment?

From this assignment, I learn that I am not as frugal as I thought I was. The saying that setting asside a portion of your income can lead to riches is a vague statement. It claims that reducing your unnecessary expenses will lead to your financial success. However, unnecessary purchases like the gym help get improve my health, barbershop and shopping improve my appearance, streaming services and vacation budget allow me relax while observe the world from different perspective to reflect upon myself and the world around me. Online courses help develop my skills in a time frame suited for me. Outside of budgeting, it is my belief the United States' income tax code needs to be adjusted, it is multifaceted. Outside the scope of the class, I learned that the United States of America's tax code is more complicate than it has to be. I attempted to draft a program to make it easier to calculate tax estimate. However, I was stumb trying to add the difference between each tax bracket. By the time I created, the draft for only Federal Income Tax Rate, it was about one page. I complete the assignment with pencil and paper.

In [ ]:
```
```