

SLIDEDECK SCREENSHOTS:

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src > help.py
1 # This is a Help Document that explains to the user what the investment program does:
2 print("-----")
3 print("Welcome to The Long-Term Investment Calculator")
4 print("-----")
5 print("Here is a quick overview of the program:")
6 print("-----")
7 print("1. The Investment Calculator Gathers Information from the Investor")
8 print("-----")
9 print("2. Using the data the calculator calculates based on your investment information provided")
10 print("-----")
11 print("what the Potential Future Value of your Investment could be in the future.")
12 print("-----")
13 print("3. In Addition, the Calculator also uses this information and the history of the global markets to calculate alternative Future Values of your Investment")
14 print("-----")
15 print("based on the number of years you invest for your potential return")
16 print("-----")
```

```
src > main.py > ...
1 import help
2
3 #Investment Calculator for Individuals Making Initial and Monthly Contributions:
4 # CollectUsersName/Deposit/RegularAmounts/Time/Frequency/TotalYears/ExpectedReturn
5
6 begin = True
7 completion = False
8 InvestorName = input("Welcome to the Long-Term Investment Calculator, please enter your name: ")
9 while begin:
10     if completion == False:
11         Start = input(f"Hello {InvestorName}, would you like to calculate your investment potential? (y/n): ")
12     elif completion == True:
13         Start = input(f"Hello {InvestorName}, would you like to calculate other investment potential using different numbers? (y/n): ")
14
15     if Start == "y":
16
17         initial_deposit = input(f"{InvestorName}, please enter your initial deposit as a whole number such as 10000: ")
18         regular_deposit = input(f"{InvestorName}, please enter your regular deposit as a whole number such as 100: ")
19         deposit_frequency = input(f"{InvestorName}, please enter how many times you wish to deposit: for example, 4 = 4 times per month: ")
20         compound_frequency = print(f"{InvestorName}, your investment will compound monthly.")
21         num_of_years = input(f"{InvestorName}, please enter the desired amount of years you'd like to invest for: ")
22         annual_return = input(f"{InvestorName}, please enter the desired return per year you expect; for example, 5 8 or 11: ")
23         setyears = [30, 50, 70]
24
25         # print(initial_deposit * 1 + (annual_return/compound_frequency) ** num_of_years)
26
27         # Convert InputStrings into Integers
28
29         initial_deposit = int(initial_deposit)
30         regular_deposit = int(regular_deposit)
31         deposit_frequency = int(deposit_frequency)
32         compound_frequency = int(12)
33         num_of_years = int(num_of_years)
34         annual_return = (int(annual_return))/100
35
36         # Calculating the Compound Interest Earned over the Investment Period
37
38         preliminary = (1+(annual_return/compound_frequency))
39         powernumber = (compound_frequency * num_of_years)
40
41         BeforeFutureValue = initial_deposit * (preliminary ** powernumber)
42
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43     # print(f"Here: {BeforeFutureValue}") # Debugging Tool
44
45     # Calculating the Future Value of The Investment
46
47     step1 = (1+(annual_return/compound_frequency))
48     powernumber2 = (compound_frequency * num_of_years)
49     annualreturndivided = annual_return/compound_frequency
50
51     half = (((step1**powernumber2)-1)/annualreturndivided)
52     futureanddeposits = regular_deposit * half
53     # print(futureanddeposits) # Debugging Tool
54
55     totalinvestmentvertime = BeforeFutureValue + futureanddeposits
56     print("-----")
57     print(f"{InvestorName}, This is the potential return on your investment based on your initial deposit and monthly contributions: {totalinvestmentvertime}")
58     print("-----")
59
60     # Investment Information + Set Number of Years & Rates
61
62     for years in setyears:
63         step1 = (1+(annual_return/compound_frequency))
64         powernumber2 = (compound_frequency * years)
65         annualreturndivided = annual_return/compound_frequency
66
67         half = (((step1**powernumber2)-1)/annualreturndivided)
68         futureanddeposits = regular_deposit * half
69         # print(futureanddeposits) # Debugging Tool
70
71         totalinvestmentover = BeforeFutureValue + futureanddeposits
72         print(f"Investment after {years} years: {totalinvestmentover} \n")
73
74     # Debugged Information
75
76     completion = True
77
78 else:
79     print("You can try again anytime.")
80     begin = False
```