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| **Program 01** |
| **Output** |
| >>>  ============== RESTART: /Users/TaylorJordan/Documents/hw4pr1.py ==============  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Payroll Program \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Data Input \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Please enter the number of employees: 3  Enter the employee name: Ann Annson  Enter the employee wage rate: 8.50  Enter the employee hours: 35  Enter the employee name: Bill Billson  Enter the employee wage rate: 12.50  Enter the employee hours: 42  Enter the employee name: Carol Carolson  Enter the employee wage rate: 22.50  Enter the employee hours: 39  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Payroll Data \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  Employee: Ann Annson  Hours: 35.0  Rate: $8.5/hr  Wage: $297.5  Employee: Bill Billson  Hours: 42.0  Rate: $12.5/hr  Wage: $525.0  Employee: Carol Carolson  Hours: 39.0  Rate: $22.5/hr  Wage: $877.5  >>> |
| **Source Code** |
| #This program utilizes the mutable lists of Python and prompts  #the user for the number of employees and then uses for loops to  #ask for the employee information and then print the information.  def main():  employeeList = [] #List to store employee names  rateList = [] #list to store employee wage rates  hoursList = [] #list to store employee hours  wagesList = [] #list to store employee total wage  #Payroll Program header  print('\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Payroll Program \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\n')  #Data Input header  print('\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Data Input \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*')  #Prompt user for the number of employees  numberOfEmployees = int(input('Please enter the number of employees: '))  #for loop for getting user input for employee information  for i in range((numberOfEmployees)):  employeeList.append(input('\nEnter the employee name: '))  rateList.append(float(input('Enter the employee wage rate: ')))  hoursList.append(float(input('Enter the employee hours: ')))  wagesList.append(((rateList[i]) \* (hoursList[i])))  #Payroll Data header  print('\n\n\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Payroll Data \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*')  #for loop for printing all of the employee information  for i in range(0,numberOfEmployees):  print('\nEmployee: {}'.format(employeeList[i]))  print(' Hours: {}'.format(hoursList[i]))  print(' Rate: ${}/hr'.format(rateList[i]))  print(' Wage: ${}'.format(wagesList[i]))    if \_\_name\_\_ == "\_\_main\_\_": main() |

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| **Program 02** |
| **Output** |
| >>>  =============== RESTART: /Users/TaylorJordan/Desktop/hw4pr2.py ===============  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Calculator Program \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  1. Add  2. Subtract  3. Multiply  4. Divide  5. Quit  Enter your choice: 1  Enter a number: 5  Enter another number: 3  The sum of 5.0 and 3.0 is 8.0.  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Calculator Program \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  1. Add  2. Subtract  3. Multiply  4. Divide  5. Quit  Enter your choice: 2  Enter a number: 5  Enter another number: 3  5.0 - 3.0 is 2.0.  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Calculator Program \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  1. Add  2. Subtract  3. Multiply  4. Divide  5. Quit  Enter your choice: 3  Enter a number: 5  Enter another number: 3  The product of 5.0 and 3.0 is 15.0.  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Calculator Program \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  1. Add  2. Subtract  3. Multiply  4. Divide  5. Quit  Enter your choice: 4  Enter a number: 5  Enter another number: 3  5.0 / 3.0 is 1.6666666666666667.  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Calculator Program \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  1. Add  2. Subtract  3. Multiply  4. Divide  5. Quit  Enter your choice: 6  Please choose between 1 and 5!  \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Calculator Program \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*  1. Add  2. Subtract  3. Multiply  4. Divide  5. Quit  Enter your choice: 5  Adios Senora/Senor! Hasta la vista!  >>> |
| **Source Code** |
| #This program asks the user to enter a number between 1-5.  #Each number corresponds to some type of arithmetic or to quit.  #Depending on the number the program will either quit or ask for  #more numbers and then perform the chosen operation between the  #two numbers. It will then print the results and loop until you quit.  def main():  #Method for menu display  def menu():  print('\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* Calculator Program \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\n')  print('1. Add')  print('2. Subtract')  print('3. Multiply')  print('4. Divide')  print('5. Quit\n')  #Call menu method  menu()  #Prompt the user for their choice  choice = int(input('Enter your choice: '))  #while loop for continuing process until user enters 5  while choice != 5:  #inner loop for getting numbers 1-4 for operations  if choice > 0 and choice < 5:  #user input for first and second number choices  first = float(input('Enter a number: '))  second = float(input('Enter another number: '))  #series of if else statements for numbers 1-4  if choice == 1:  total = first + second  print('The sum of {} and {} is {}.'.format(first,second,total))  elif choice == 2:  difference = first - second  print('{} - {} is {}.'.format(first,second,difference))  elif choice == 3:  product = first \* second  print('The product of {} and {} is {}.'.format(first,second,product))  elif choice == 4:  quotient = first / second  print('{} / {} is {}.'.format(first,second,quotient))  #else statement to catch numbers not in the 1-4 spectrum  else:  print('Please choose between 1 and 5!\n')  #Call menu method to reprint menu  menu()  #prompt user for their new choice for next loop iteration  choice = int(input('Enter your choice: '))  #if statement to catch "QUIT" option  if choice == 5:  print('\nAdios Senora/Senor! Hasta la vista!')    if \_\_name\_\_ == "\_\_main\_\_": main() |

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| **Program 03** |
| **Output** |
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| **Source Code** |
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| **Program 04** |
| **Output** |
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| **Source Code** |
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| **Program 05** |
| **Output** |
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| **Source Code** |
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