

# Assignment 1

## Budget Management Application : The solution :

```
1 import 'dart:io';
2
3 void main() {
4   double totalIncome = 0;
5   double totalExpenses = 0;
6
7   print("\nWelcome to the Budget Management Application!");
8   print("\nPlease choose an option:");
9   print("""
10  1. Add income
11  2. Add expense
12  3. View summary
13  4. Exit
14  """);
15
16  while (true) {
17    stdout.write("\nEnter your choice: ");
18    String? choice = stdin.readLineSync();
19
20    if (choice == '1') {
21      stdout.write("Enter income description: ");
22      String? description = stdin.readLineSync();
23
24      stdout.write("Enter income amount: ");
25      double? amount = double.tryParse(stdin.readLineSync() ?? '');
26
27      if (amount != null && amount >= 0) {
28        totalIncome += amount;
29        print("Income added!");
30      } else {
31        print("Invalid amount! Please enter a valid number.");
32      }
33    } else if (choice == '2') {
34      stdout.write("Enter expense description: ");
35      String? description = stdin.readLineSync();
36
37      stdout.write("Enter expense amount: ");
38      double? amount = double.tryParse(stdin.readLineSync() ?? '');
39
40      if (amount != null && amount >= 0) {
41        totalExpenses += amount;
42        print("Expense added!");
43      } else {
44        print("Invalid amount! Please enter a valid number.");
45      }
46    } else if (choice == '3') {
47      double netProfit = totalIncome - totalExpenses;
48      double tax = netProfit * 0.15;
49
50      print("\nSummary:");
51      print("Total income: \${totalIncome.toStringAsFixed(0)}");
52      print("Total expenses: \${totalExpenses.toStringAsFixed(0)}");
53      print("Net profit: \${netProfit.toStringAsFixed(0)}");
54      print("Tax to be paid: \${tax.toStringAsFixed(0)}");
55    } else if (choice == '4') {
56      print("Exiting the application. Goodbye!");
57      break;
58    } else {
59      print("Invalid choice! Please select a valid option (1-4).");
60    }
61  }
62 }
```

## The Output :

```
Welcome to the Budget Management Application!
```

```
Please choose an option:
```

1. Add income
2. Add expense
3. View summary
4. Exit

```
Enter your choice: 1
Enter income description: Sales
Enter income amount: 10000
Income added!
```

```
Enter your choice: 2
Enter expense description: Rent
Enter expense amount: 3000
Expense added!
```

```
Enter your choice: 3
```

```
Summary:
Total income: $10000
Total expenses: $3000
Net profit: $7000
Tax to be paid: $1050
```

```
Enter your choice: 4
Exiting the application. Goodbye!
```