

**1) Project KBS V1.1 Algorithms design**

Second Partial Project: “Project KBS V1.1”

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* Calculation of the total of the client in each visit.

1. Get the service and its price from the DB “Services” – Price-
2. How many of each services does the client is getting. –Nservices-
3. Set “DayIn” as 0
4. Calculate: **For each of the services**

Multiply (**Price\*Nservices**) –SubT-

Sum the “SubT” (total of individual services) OF EACH SERVICE –Total-

1. Sum “Total” + “DayIn”
2. Display -Total-
3. **END**

* Calculation of the promotions and discounts for clients

1. Get the specific clients total –Total-
2. Get the type of promotion or discount for the client (**depending on the promotion the variable will be assigned previously in the data base**)
3. Calculate: (Total-pomotion/discount) –Tdiscount-
4. Display –Tdiscount-
5. **END**

* Calculation of the products storage capacity and organization

1. Get the products which will be stored (**assign a specific variable for each of them in the DB “products”)**
2. Get the total space for the storage of the individual product

–totalSpace-

1. Get the number of products –Nproducts-
2. Get how many items are already in stock –Stock-
3. IF “Nproducts is >=0 AND <= “TotalSpace” go to step 7, If not go to step 6
4. Display “There is not enough space for store the quantity requested”
5. IF “Nproducts”+”Stock” is >=0 AND <=Nproducts got to step 10 , if not go to step 9
6. Display “There is not enough space for store the quantity requested”
7. SUM “Nproducts”+”Stock” –TStock-
8. Refresh DB “Products” individual product stock number
9. Display “The total stock now is” + “TStock”
10. **END**

* Calculation of the products purchases income

1. Get the type of product –Product-
2. Get the number of items sold –SoldP-
3. Get the price of the specific product from the DB “Products” –Price-
4. Get the number of products in stock from the DB “Products” –PIS-
5. Multiply “Price” \* ”SoldP –PIncome-
6. Subtract “PIS” – “SoldP” –StockL-
7. Set “StockL” in the DB “Products” in the product´s corresponding Stock quantity
8. Display “Total of products income” + “PIncome” + “In Stock products” + “StockL”
9. **END**

* Calculation of the outcome for the day, week and month

**Day:**

1. Get the total of products expenses –PE-
2. Get the total of the utilities expenses –UE-
3. Get the total of Employee payments –EP-
4. Get the total of extra expenses –EEX-
5. Sum “PE” + “UE” + “EP” + “EEX” –DayEX-
6. Display “Total Day Expenses” + “DayEX”
7. **END**

**Week:**

1. Get the total of expenses for Monday –MONex-
2. Get the total of expenses for Tuesday –TUEex-
3. Get the total of expenses for Wednesday –WEDex-
4. Get the total of expenses for Thursday -THURex-
5. Get the total of expenses for Friday –FRIex-
6. Get the total of expenses for Saturday -SATex-
7. Get the total of expenses for Sunday –SUNex-
8. Sum “MONex” + “TUEex” + “WEDex” + “THURex” + “FRIex” + “SATex” + “SUNex” –WeekEX-
9. Display “Total Week Expenses” + “WeekEX”
10. **END**

**Month:**

1. Ask the number of whole weeks in the current month –Weeks-
2. Ask the number of extra days does the current month has –Days-
3. Ask the total of expenses for the specific number of weeks –TweekEX-
4. Ask the total of expenses for the specific number of extra days

–TdayEX-

1. Sum “TweekEX” + ”TdayEX” –MonthEX-
2. Display “Total Month Expenses” + “WeekEX”
3. **END**

* Calculation of the Net income for the day, week and month

**Daily Income:**

1. Get the total of the day outcome -DayEX-
2. Get the total of products sales –Pincome-
3. Get the total of the services sales of the day – DayIn -
4. Sum “Pincome” + “DayIn” –SUBDayIn-
5. Subtract “SUBDayIn” – “DayEX” –TDayIncome-
6. Display “Total Day Income” + ”TDayIncome”
7. **END**

**Weekly income:**

1. Get the total of Income for Monday –MONin-
2. Get the total of Income for Tuesday –TUEin-
3. Get the total of Income for Wednesday –WEDin-
4. Get the total of Income for Thursday -THURin-
5. Get the total of Income for Friday –FRIin-
6. Get the total of Income for Saturday -SATin-
7. Get the total of Income for Sunday –SUNin-
8. Sum “MONin” + “TUEin” + “WEDin” + “THURin” + “FRIin” + “SATin” + “SUNin” –SUBWeekIn-
9. Subtract “SUBWeekIn” – “WeekEX” – TweekIncome-
10. Display “Total Week Income” + “TWeekIncome”
11. **END**

**Monthly income:**

1. Ask the number of whole weeks in the current month –Weeks-
2. Ask the number of extra days does the current month has –Days-
3. Ask the total of expenses for the specific number of weeks

–TweekEX-

1. Ask the total of expenses for the specific number of extra days

–TdayEX-

1. Ask the total of Income for the specific number of weeks –TweekIN-
2. Ask the total of Income for the specific number of extra days

–TdayIN-

1. Sum “TweekIN” + ” TdayIN” –SUBMonthIn-
2. Sum “TweekEX” + ”TdayEX” –MonthEX-
3. Subtract “SUBMonthIn” – “MonthEX”
4. Display “Total Month Income” + “TMonthIncome”
5. **END**