

[illegible]

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81         case '0':
82             cout << endl << "\tGood Bye. See you :) " << endl;
83             exit(0);
84             break;
85         default:
86             cout << "Invalid Choice" << endl << endl;
87             break;
88     }
89     if(choice != '1' && choice != '6')
90         cont();
91     clear();
92     menu();
93 }
94
95 // Add daily salesperson slip
96 void slip(){
97     clear();
98     int snum, pnum;
99     float pvalue;
100     cout << endl << endl << "\t\t ADD SLIP DATA\n" << endl;
101     cout << "\tEnter salesperson number [1-4] : " ;
102     cin >> snum;
103     cout << "\tEnter sold product number [1-5]: " ;
104     cin >> pnum;
105     cout << "\tHow much money sold (in birr) : " ;
106     cin >> pvalue;
107     sales[pnum][snun] += pvalue;
108
109     if (snun < 5 && pnum < 6 && snun > 0 && pnum > 0 )
110         cout << endl << "\tSlip data added Successfully!" << endl;
111     else
112         cout << endl << "\tInvalid input. Slip Adding failed..." << endl;
113 }
114
115 // Ask if user wants to add another slip Again
116 bool again(){
117     bool again = false;
118     char x;
119     cout << endl << "\tWanna add again? Y/N : ";
120     cin >> x;
121     switch(x){
122         case 'Y':
123         case 'y':
124             again = true;
125             break;
126         case 'N':
127         case 'n':
128         default:
129             again = false;
130     }
131     clear();
132     return again;
133 }
134
135 // calculate Total sales values
136 void total(){
137     // row total
138     for(int i=1; i<6; i++){
139         sales[i][5] = 0;
140         for ( int j =1; j<5; j++){
141             sales[i][5] += sales[i][j];
142         }
143     }
144     // column total
145     for(int i=1; i<6; i++){
146         sales[6][i] = 0;
147         for ( int j =1; j<6; j++){
148             sales[6][i] += sales[j][i];
149         }
150     }
151 }
152 // Calculate 5% Bonus of each salesperson
153 void bonus(){
154     for(int i=1; i<6; i++){
155         sales[7][i] = (0.05) * sales[6][i]; // Bonus = 5% of Total sale
156     }
157 }
158
159 // Display Table
160 void display(){
161     clear();
162     total();
163     bonus();
164 }

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165     cout << endl << endl << endl << "\t";
166     cout << "\t\t\t\t\t SUMMARY OF TOTAL SALE\n\t";
167     cout <<
    "-----" << endl << "\t";
168     for(int i=0; i<6; i++){
169         cout << left << setw(15) << salespersons[i]<< "| ";
170         cout << endl << "\t";
171         cout <<
    "-----" << endl << "\t";

172     for(int i=1; i<8; i++){
173         cout << fixed << setprecision(2) << left << setw(15) << products[i]<< "| ";
174         for (int j=1; j<6; j++){
175             cout << setw(15) << sales[i][j] << "| ";
176         }
177         cout << endl << "\t";
178         if(i==5)
179             cout <<
    "-----" << endl << "\t";

181     }
182     cout <<
    "-----" << endl << "\t";

183     cout << endl << "\t";
184 }
185
186 // clear screen for a better view
187 inline void clear(){
188     system("CLS");
189 }
190
191 // Go to menu
192 inline void cont(){
193     string n;
194     cout << endl << "Press Enter to continue: ";
195     cin.ignore();
196     getchar();
197 }
198
199 // Search for specific salesperson information
200 void findSP(){
201     int spnum, total=0;
202     cout << endl << endl;
203     cout << "\tEnter Sales person number: ";
204     cin >> spnum;
205
206     if (spnum >0 && spnum < 5){
207         clear();
208         cout << endl << endl;
209         cout << "\n\tSalesperson " << spnum << " sale information: " << endl << endl;
210         for (int i=1; i<6; i++){
211             cout << "\tProduct " << i << " sale:\t" << sales[i][spnum] << " birr" << endl;
212             total += sales[i][spnum];
213         }
214         cout << "\t-----" << endl;
215         cout << "\tTotal sale: \t" << sales[6][spnum] << " birr" << endl << endl;
216         cout << "\tBonus (5%): \t" << sales[7][spnum] << " birr" << endl << endl;
217     }
218     else
219         cout << "\tInvalid Input." << endl;
220 }
221 // Search for specific product information
222 void findP(){
223     int pnum, total=0;
224     cout << endl << endl;
225     cout << "\tEnter Product number: ";
226     cin >> pnum;
227     if (pnum >0 && pnum < 6){
228         clear();
229         cout << endl << endl;
230         cout << "\n\tProduct " << pnum << " sales information:" << endl << endl;
231         for (int i=1; i<5; i++){
232             cout << "\tSale by Salesperson " << i << ":\t" << sales[pnum][i] << " birr" <<
endl;
233             total += sales[pnum][i];
234         }
235         cout << "\t-----" << endl;
236         cout << "\tTotal sale of the Product: " << sales[pnum][5] << " birr" << endl <<
endl;
237     }
238     else

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240 }
241 // Rank of salespersons / leader board
242 void SpRank() {
243     total();
244     clear();
245     float Top[5];
246     string Rank[5];
247
248     for(int i=1;i<5;i++){ // copy
249         Top[i]= sales[6][i];
250         Rank[i]= salespersons[i];
251     }
252     for(int i=1;i<5;i++){ //sort
253         for(int j=1;j<5;j++){
254             if (Top[i]> Top[j]){
255                 swap(Top[i], Top[j]);
256                 swap(Rank[i], Rank[j]);
257             }
258         }
259         cout << endl << endl << endl;
260         cout << "\t\tLEADERBOARD\n" << endl;
261         cout << "\tRank" << "\t" << "\t\tTotal Sale" << endl;
262         cout << "\t-----\n";
263         for(int i=1;i<5;i++){
264             cout << "\t" << i << "\t" << left << setw(15) << Rank[i] << "\t";
265             cout << fixed << setprecision(2) << Top[i] << " birr" << endl;
266         }
267     }
268 // Group Members ( Developers) Name and ID No.
269 void devs(){
270     clear();
271     string memembers[][2] = {"Birhanu Worku", "ETS 0279/13"}, {"Biruk Mesfin", "ETS
0290/13"}, {"Bisrat Kebera", "ETS 0306/13"}, {"Biyal Mesay", "ETS 0309/13"}, {"Dagim
Tezerawork", "ETS 0333/13"};
272     cout << endl << endl;
273     cout << "\t ADDIS ABABA SCIENCE AND TECHNOLOGY UNIVERSITY\n";
274     cout << "\t COLLEGE OF ELECTRICAL AND MECHANICAL ENGINEERING\n";
275     cout << "\t\tDEPARTMENT OF SOFTWARE ENGINEERING\n";
276     cout << "\t\t\t\tSECTION A\n" << endl << endl;
277
278     cout << "\t\t" << left << setw(3) << "No" << setw(20) << "Name" << setw(25) << "ID"
<< endl;
279     cout << "\t\t" << setw(3) << "--" << setw(20) << "-----" << setw(25) <<
"-----" << endl;
280
281     for (int i = 0; i < 5; i++){
282         cout << "\t\t" << setw(3) << i + 1 << setw(20) << memembers[i][0] << setw(25) <<
memembers[i][1] << endl;
283     }
284     cout << endl << "\tInstructor: Eleni T." << endl << "\tSubmitted on: 25th April,
2022" << endl;
285 }
286 // Menu to change Change Product and Salesperson Names
287 void changeN(){
288     clear();
289     fail:
290     char type;
291     cout << endl << "\t\tCHANGE NAME" << endl << endl;
292     cout << "\tHere are the Options\n" << endl;
293     cout << "\tEnter 1 - Set / Change SalesPerson name" << endl;
294     cout << "\tEnter 2 - Set / Change Product name" << endl;
295     cout << "\tEnter 3 - Back to Menu" << endl;
296     cout << "\nChoose Options: ";
297     cin >> type;
298
299     switch(type){
300         case '1':
301             changeSPN();
302             break;
303         case '2':
304             changePN();
305             break;
306         case '3':
307             break;
308         default:
309             clear();
310             cout << "\n\nInvalid input. Try Again." << endl;
311             goto fail;
312             break;
313     }
314     if(type!='3')
315         cont();
316 }
317 // Change Sales person name
318 void changeSPN(){

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318     int spnum;
319     cout << "Enter sales person number[1-4]: ";
320     cin >> spnum;
321
322     if(spnum > 0 && spnum < 5){
323         cout << endl << endl << "Current name: " << salespersons[spnum] << endl;
324         cout << "Enter new name: ";
325         cin >> salespersons[spnum];
326         cout << "Name Successfully changed!" << endl;
327     }
328     else
329         cout << "Invalid salesperson number. You should enter [1-4]." << endl;
330 }
331 // Change Product name
332 void changePN(){
333     int pnum;
334     cout << "Enter product number[1-5]: ";
335     cin >> pnum;
336
337     if(pnum > 0 && pnum < 6){
338         cout << endl << endl << "Current name: " << products[pnum] << endl;
339         cout << "Enter new name: ";
340         cin >> products[pnum];
341         cout << "Name Successfully changed!" << endl;
342     }
343     else
344         cout << "Invalid product number. You should enter [1-5]." << endl;
345 }
346
347 // Instructor: Eleni T.
348 // Submission date: April 25, 2022.
349 // 2022 @ AASTU. Department of Software Engineering. Section A.
350

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