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//TODO.cpp
//Dante Bianucci, CISP 400
//Due 11/7/2021

#include<iostream>
#include<iomanip>
#include<string>
#include<fstream>
#include <fstream>
#include <exception>
#include <memory>

using namespace std;

void programGreeting();

void compTestData();

class ToDoList{

public:

void addList(string);
void delList(string);
void displayList();

};

int main(){

programGreeting();

compTestData();

ToDoList tdlObj;

bool quitCondition = 0;
string toDoTask;
char userMenuOption = ' ';


while (quitCondition == 0){
cout<<"               ~* To-Do List: *~\n";



cout << "Input a '+' into the console to add an item to your list!\n";
//Specification C2 - Overload »
cout << "Input a '-' into the console to remove an item to your list!\n";

cout << "Input an '?' operator to display the current items on the TODO list!\n";
// Specification C1 - Overload «
cout << "Input the 'x' key to terminate the program\n\n";

cout << "User Input: ";

cin >> userMenuOption;
```

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if(userMenuOption == '+'){

getline(cin,toDoTask);

  }else if ( userMenuOption == '-'){
    getline(cin,toDoTask);
  }
    if(userMenuOption == '+'){

      tdlObj.addList(toDoTask);

  }

  else if (userMenuOption == '-'){

    tdlObj.delList(toDoTask);

  }

else if(userMenuOption == '='){

    tdlObj.displayList();

  }
else{

return 0;

    }//End if else

  }//End Input Validating Loop

}//End of main

void programGreeting(){

  string userInput;

  cout << "-------------------------------------------\n";
  cout << "|       -----  -----   |`--_    -----      |\n";
  cout << "|         |    |    |  |    |   |    |     |\n";
  cout << "|         |    |____|  |_ _-'   |____|     |\n";
   cout << "|                                          |\n";
  cout << "|                                          |\n";
  cout << "|                                          |\n";
  cout << "|         |       o  --------  -----       |\n";
  cout << "|         |       |  |_______     |        |\n";
  cout << "|         |_______ |   _______|    |        |\n";
  cout << "|                                          |\n";
  cout << "|                                          |\n";

  cout << "|         Program By: Dante Bianucci       |\n";
  cout << "|              Due: 11/07/2021             |\n";
  cout << "|                                          |\n";
  cout << "|                                          |\n";
  cout << "|                                          |\n";
```

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  cout << "|                                              |\n";
  cout << "------------------------------------------\n\n";

  cout << "Push [Enter] to Continue\n";
  getline(cin, userInput);

}//end program greeting


void compTestData(){
  string userEntry;

  // Specification C3 - Test TODO's
  cout << "\nRunning Test Data:\n";
  cout << "_________________\n\n";

  cout << "\nItem ID#:\t 100 \n";
  cout << "Task Name:\t Clear All Items From Task List\n";
  cout << "Date Added:\t 06/09/2021\n\n";

  cout << "Item ID#:\t 101 \n";
  cout << "Task Name:\t Put on Sweats\n";
  cout << "Date Added:\t 06/09/2021\n\n";

  cout << "Item ID#:\t 102 \n";
  cout << "Task Name:\t Turn off Phone to Outside World\n";
  cout << "Date Added:\t 06/09/2021\n\n";

  cout << "Item ID#:\t 103 \n";
  cout << "Task Name:\t Climb into Bed\n";
  cout << "Date Added:\t 06/09/2021\n\n";

  cout << "Item ID#:\t 101 \n";
  cout << "Task Name:\t Avoid all Responsibilites\n";
  cout << "Date Added:\t 06/09/2021\n\n";\

  cout << "Task List Completed... A little too successfully (>.<)\n\n";

  cout << "Push [Enter] to Continue\n";
  getline(cin, userEntry);
}

void ToDoList::addList(string item){
//Specification C4 - TODO array

char operatorInput;
int itemNum = 0;
string tdListTask;
string fileData;

ifstream in;

while(getline(in, fileData))
itemNum += 1;

in.open("TDL.txt");

ofstream f;
```

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f.open("TDL.txt", ios::app);

f.close();

cout<<"Task has been successfully added to the list!"<<endl;

cout<<"Input a '+' into the console to add an item to your list!\n";
// Specification B1 - + Symbol

cout<<"Input a '-' into the console to remove an item to your list!\n";
// Specification B3 - - symbol

cout<<"Input an '?' operator to display the current items on the TODO list!\n";
// Specification B2 - ? Symbol

cout<<"Input the 'x' key to terminate the program\n\n";

cout << "User Input: ";

cin>>operatorInput;

if(operatorInput == '+')

{

getline(cin,tdListTask);

addList(tdListTask);

}

else if(operatorInput == '-'){

getline(cin, tdListTask);
delList(tdListTask);

}else if(operatorInput == '='){

displayList();

}else if(operatorInput == 'x'){

cout << "Program will terminate now. Press 'Run' to start again!\n\n";
return;

}//end if

}//End addlist function

void ToDoList::delList(string item){

string delTask;
string tempString;
tempString = delTask;

ifstream myfile("TDL.txt");

ofstream newfile("temp.txt");
```

```
if (myfile.is_open())

{

while ( getline (myfile,delTask) )

{

if(tempString.find(item)!=std::string::npos)

{

newfile<<tempString;

}

}

myfile.close();
//Specification B4 - Persistence
remove("TDL.txt");

rename("temp.txt","TDL.txt");

  }

}//End del list function

void ToDoList::displayList(){

string delTask;
ifstream myfile("TDL.txt");
if (myfile.is_open())

{

    while ( getline (myfile,delTask) )

    {

      cout << delTask << '\n';

    }

    myfile.close();

}

}
```