Oluwashile Adeniyi Final Project

To Do Task

import java.text.ParseException;  
import java.text.SimpleDateFormat;  
import java.util.ArrayList;  
import java.util.Date;  
import java.util.List;  
import java.util.Scanner;  
  
public class Main {  
 public static void main(String[] args) {  
 new ToDoApp();  
 }  
}  
  
class ToDoApp {  
 private Scanner input = new Scanner(System.*in*).useDelimiter("\n");  
 private List<Task> taskList = new ArrayList();  
  
 public ToDoApp() {  
 displayMainMenu();  
 }  
  
 private void displayMainMenu() {  
 String menu = "Select task action number\n" +  
 "1. Add a task\n" +  
 "2. Mark task as done\n" +  
 "3. Remove task\n" +  
 "4. Edit task\n" +  
 "5. Display all tasks\n" +  
 "6. Exit\n";  
  
 int selectedTaskActionId = 0;  
 do {  
 System.*out*.println(menu);  
 selectedTaskActionId = input.nextInt();  
 switch (selectedTaskActionId) {  
 case 1:  
 addTask();  
 break;  
 case 2:  
 displayMarkTaskAsDone();  
 break;  
 case 3:  
 removeTask();  
 break;  
 case 4:  
 editTask();  
 break;  
 case 5:  
 displayAllTasks();  
 break;  
 case 6:  
 exitProgram();  
 break;  
 }  
 } while (selectedTaskActionId == 0);  
 }  
  
 private void addTask() {  
 System.*out*.println("Enter title :");  
 String title = input.next();  
  
 String dueDateString;  
 Date dueDate = null;  
 System.*out*.println("Enter due date (dd/MM/yyyy):");  
 do {  
 dueDateString = input.next();  
 try {  
 if (!dueDateString.isEmpty())  
 dueDate = new SimpleDateFormat("dd/MM/yyyy").parse(dueDateString);  
 } catch (ParseException exception) {  
  
 }  
 } while (dueDate == null);  
  
 System.*out*.println("Enter description:");  
 String description = input.next();  
  
 int id = taskList.size() + 1;  
 Task task = new Task(id, title, dueDate, description);  
 taskList.add(task);  
 displayAllTasks();  
 displayMainMenu();  
 }  
  
 private void displayMarkTaskAsDone() {  
 System.*out*.println();  
 int id = 0;  
 do {  
 System.*out*.println("-------- Enter task # to mark as done: ----------");  
 while (!input.hasNextInt()) {  
 System.*out*.println("That's not a number!\nPlease select the task number");  
 input.next();  
 }  
 id = input.nextInt();  
 if (id <= taskList.size()) {  
 int taskIndex = id - 1;  
 taskList.get(taskIndex).setStatus(Task.Status.*DONE*);  
 System.*out*.println("-------- Marked as done --------");  
 displayMainMenu();  
 } else {  
 System.*out*.println("-------- Task doesn't exist ----------");  
 }  
 } while (id == 0 || id < taskList.size());  
 }  
  
 private void editTask() {  
 int id = 0;  
  
 System.*out*.println("Enter task # to edit:");  
 id = input.nextInt();  
 if (id <= taskList.size()) {  
 System.*out*.println("Enter title :");  
 String title = input.next();  
  
 String dueDateString;  
 Date dueDate = null;  
 System.*out*.println("Enter due date (dd/MM/yyyy):");  
 do {  
 dueDateString = input.next();  
 try {  
 if (!dueDateString.isEmpty())  
 dueDate = new SimpleDateFormat("dd/MM/yyyy").parse(dueDateString);  
 } catch (ParseException exception) {  
  
 }  
 } while (dueDate == null);  
  
 System.*out*.println("Enter description:");  
 String description = input.next();  
  
 int taskIndex = taskList.size() - 1;  
 taskList.get(taskIndex).setTitle(title);  
 taskList.get(taskIndex).setDescription(description);  
 taskList.get(taskIndex).setDueDate(dueDate);  
 System.*out*.println("Task edited");  
 displayMainMenu();  
 } else {  
 System.*out*.println("No task.\nCreate a task");  
 displayMainMenu();  
 }  
 }  
  
 private void removeTask() {  
 int id = 0;  
  
 do {  
 System.*out*.println("Enter task # to remove:");  
 id = input.nextInt();  
 if (id <= taskList.size()) {  
 taskList.remove(id - 1);  
 System.*out*.println("Task deleted");  
 displayMainMenu();  
 }  
 } while (id != 0 || id < taskList.size());  
 }  
  
 private void displayAllTasks() {  
 if (taskList.size() == 0) {  
 System.*out*.println("==================================");  
 System.*out*.println("======== No task to display ======");  
 System.*out*.println("==================================");  
 System.*out*.println();  
 displayMainMenu();  
 return;  
 }  
 System.*out*.println("============================");  
 System.*out*.println("======== To-do list ========");  
 System.*out*.println("============================");  
 System.*out*.println(taskList.toString());  
 }  
  
 private void exitProgram() {  
 System.*exit*(0);  
 }  
}  
  
class Task {  
  
 enum Status {  
 *PENDING*,  
 *DONE* }  
 private int id;  
 private String title;  
 private Date dueDate;  
 private Status status;  
 private String description;  
  
 @Override  
 public String toString() {  
 return "Task" +  
 " #" + id +  
 ", title='" + title + '\'' +  
 ", dueDate='" + dueDate + '\'' +  
 ", status='" + status + '\'' +  
 ", description='" + description + '\'';  
 }  
  
 public Task(int id, String title, Date dueDate, String description) {  
 this.id = id;  
 this.title = title;  
 this.dueDate = dueDate;  
 this.status = Status.*PENDING*;  
 this.description = description;  
 }  
  
 public int getId() {  
 return id;  
 }  
  
 public String getTitle() {  
 return title;  
 }  
  
 public void setTitle(String title) {  
 this.title = title;  
 }  
  
 public Date getDueDate() {  
 return dueDate;  
 }  
  
 public void setDueDate(Date dueDate) {  
 this.dueDate = dueDate;  
 }  
  
 public Status getStatus() {  
 return status;  
 }  
  
 public void setStatus(Status status) {  
 this.status = status;  
 }  
  
 public String getDescription() {  
 return description;  
 }  
  
 public void setDescription(String description) {  
 this.description = description;  
 }  
}

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