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Java Object Oriented Programming 2021

Ice Hockey Team Manager Application

Project Description:

The project is an application which is used to store data of the matches the team has participate. User can enter the date, opponent team's name and the result of that match. Thus, user can enter the point each team member has scored during the game. The list of players (which is stored in a combo box in the GUI) is read from the file "players.txt". User can delete, add new player by editing the text file as he/she want. All the matches user has created can be seen by choosing the match date in the combo box in GUI. And the statistics of players, which is basically the number of point they have scored through out all the matches, can also be seen by simply clicking the button to show.

Give details of the game:

Date (dd.mm.yyyy)

Opponent

Final result (Our score : Their score)

Choose player who scored and give their point:

Player

Point

Choose a date to see the details of the game on that date:

Show match on:

Show stats of player's score (descending)

```
Date: 18.11.2019
Opponent: TSM
Final result: 13:12
Player & Point
asuna : 30
hiko : 25
nitr0 : 19
steel : 20
dicey : 24
```

Screenshot #1: The general look of the application

The screenshot shows a light blue application window. At the top, it says "Choose player who scored and give their point:". Below this, there are two labels: "Player" and "Point". The "Player" label is next to a dropdown menu that is currently open, showing a list of player names: "dicey", "asuna", "dicey", "hiko", "nitr0", and "steel". The "Point" label is next to an empty text input field. Below these, there is another label: "Choose a date to see the details of the game on that date:". Underneath this, there is a label "Show match on:" followed by another dropdown menu.

Screenshot #2: The player list in combo box

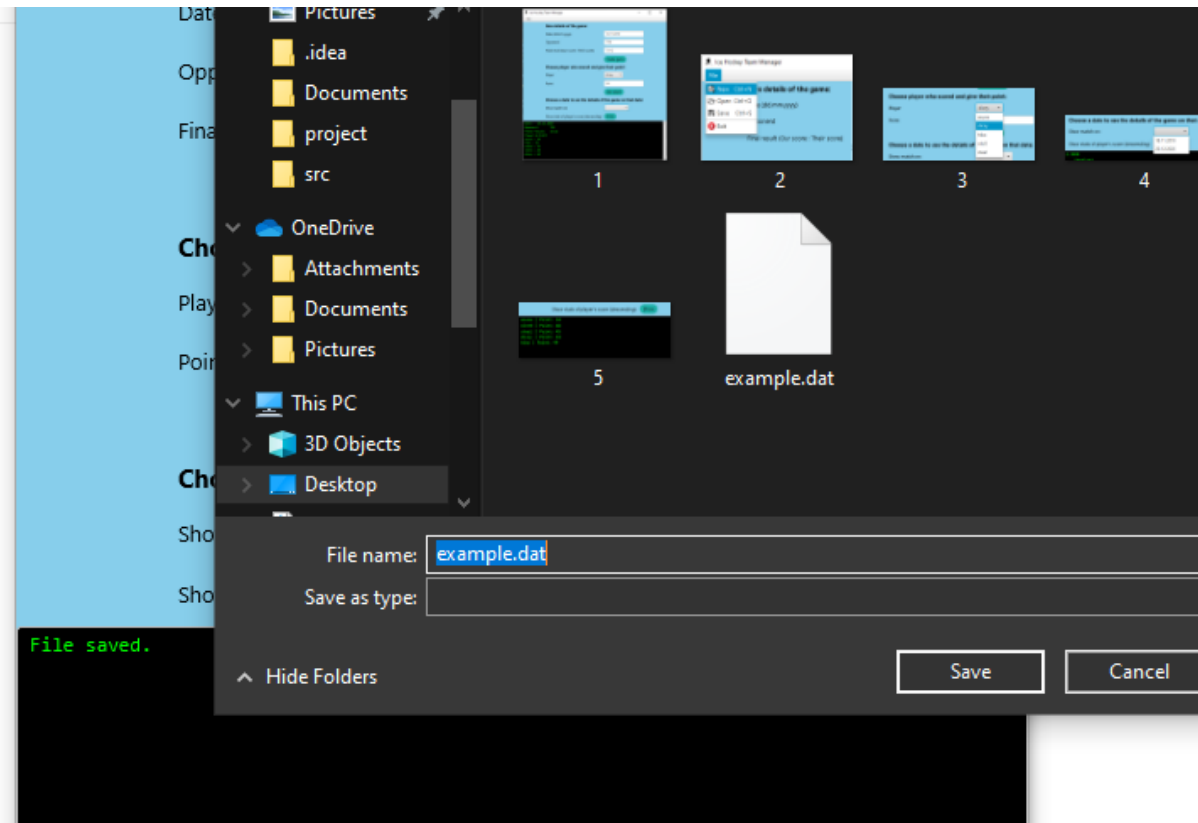
This screenshot focuses on the date selection part of the application. It shows the label "Choose a date to see the details of the game on that date:" and the "Show match on:" dropdown menu, which is open and displaying a list of dates: "18.11.2019" and "20.12.2020". Below the date list, there is a label "Show stats of player's score (descending)". At the bottom left, there is a green text label "2.2020" and a partially visible green text label "Sentinel".

Screenshot #3: The date list in combo box which is used to see created matches

This screenshot shows the output of the application. At the top, there is a label "Show stats of player's score (descending)" and a green "Show" button. Below this, on a black background, there is a list of player names and their scores, each preceded by a green vertical bar: "asuna | Point: 54", "nitr0 | Point: 48", "steel | Point: 45", "dicey | Point: 44", and "hiko | Point: 44".

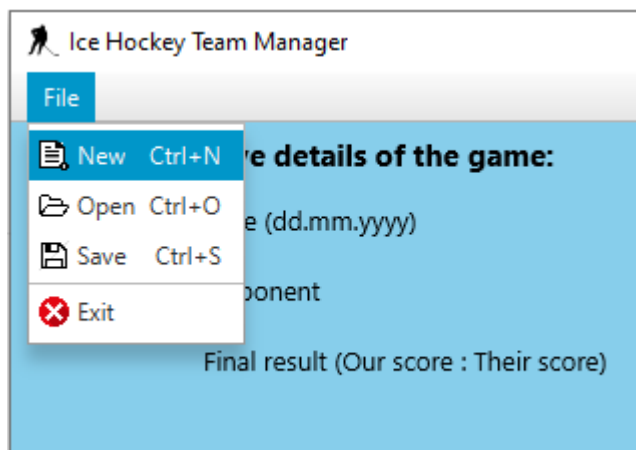
Screenshot #4: Stats of players shown in output screen

All the data can be saved to a ".dat" file with location depends on the user choice. All the saved files open in the program to see the data.



Screenshot #5: File being saved

The graphical user interface of the application includes a menu bar with options: “New” to open a new session, “Open” to open a saved file, “Save” to save all the data to a file and “Close” to exit the application. All the options have keyboard shortcut to make things more convenient for user to navigate.



Screenshot #6: Menu bar

The source code file includes 4 classes:

Main.class: this is the main class which is used to execute the program. It contains all the graphical user interface, and methods required to make the program runnable: creating games, saving to files, opening files, showing stats of players, etc

Date.class: this class is used to parse date strings into integer variables.

Match.class: this is the class which is used to output the match data and the score team members made during the match.

Player.class: this class is used to output the summed point of each player through out all the matches.

players.txt: this is the text file with a list of all the team members. The program implements the list to the combo box in the GUI. User can edit the file as he/she wants: deleting, adding new members.