Object Oriented Programming Project: Part 2
Birthday Tracker

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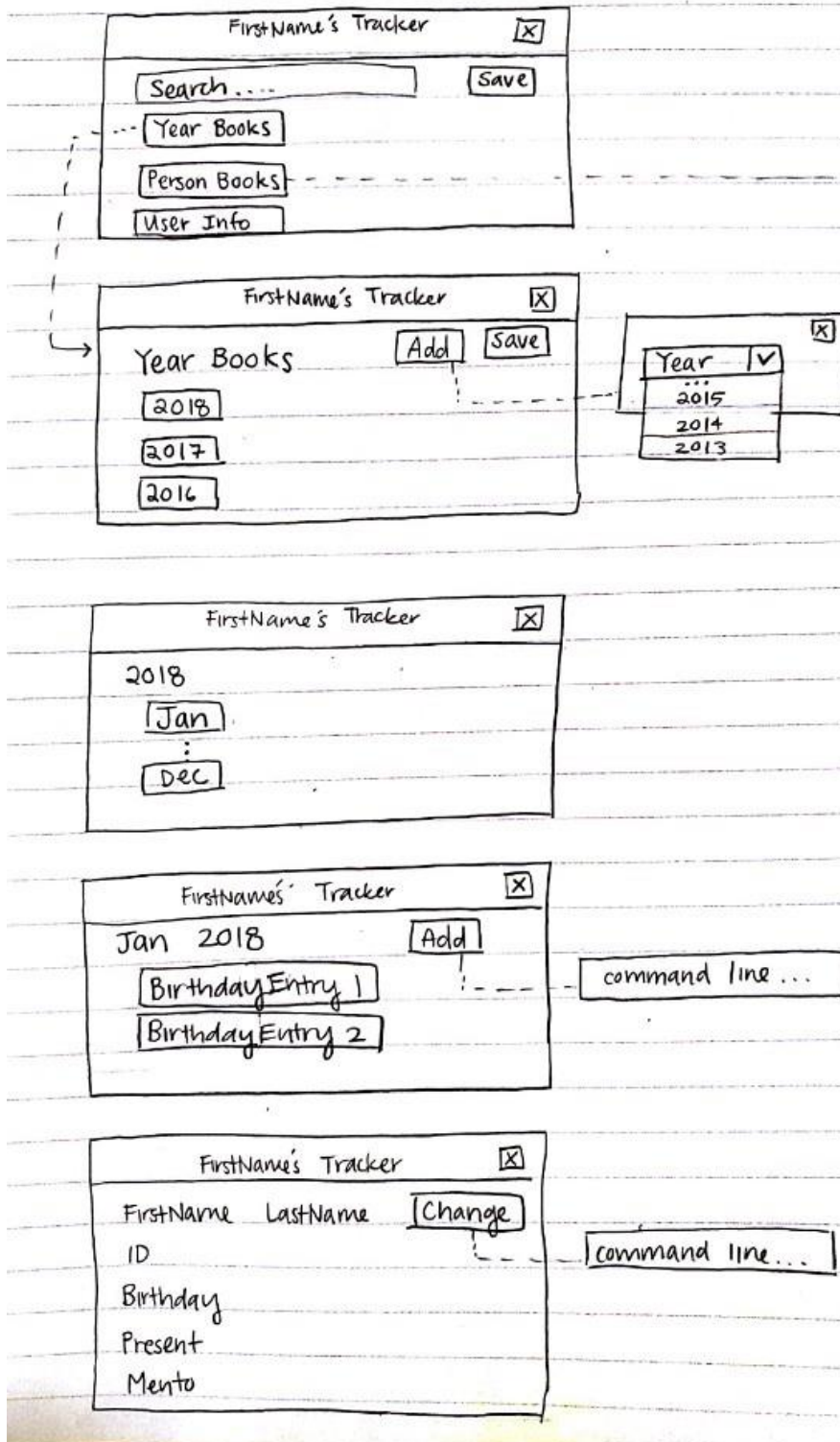Title: Birthday Tracker
Summary: Birthday Tracker will be an application that always users to store the birthdays of their friends and presents that they have given them. The application will have year books in which past presents or future presents can be stored. The user can search for a friend's birthday via name, month, and/or date.

Requirements:

1	User can select to open Year Books, Person Books, or User Info
2	User can add and delete a person's birthday information in Year Books or Person books
3	User can edit birthday information: name, date of birth
4	User can add past presents information in Year Books
5	User can search for a friend's birthday via name, month, and/or date
6	User can add presents to a certain year book, whether past, current, or future.
7	User delete year books or person books
8	User can save or discard changes when user tries to quit application
9	User can see user name at top of application
10	User can change user info

UI Mockups:

FirstName's Tracker [X]

[Search....]   [Save]
--- [Year Books]
[Person Books] - - - - - -
[User Info]

FirstName's Tracker [X]

Year Books   [Add] [Save]

[2018]
[2017]
[2016]

[Year ▼]
...
2015
2014
2013   [X]

FirstName's Tracker [X]

2018
  [Jan]
    ⋮
  [Dec]

FirstNames' Tracker [X]

Jan 2018   [Add]
  [Birthday Entry 1]   [command line ...]
  [Birthday Entry 2]

FirstName's Tracker [X]

FirstName LastName [Change]
ID   [command line ...]
Birthday
Present
Mento

FirstName's Tracker [X]

Person Books   [Add]
[Person 1]
[Person 2]

[command line....]

FirstName's Tracker [X]

FirstName LastName   [Change]
ID
Birthday
All Presents

[Command line ...]

FirstName's tracker [X]

User Info   [Change]
FirstName LastName
Birthday

[command line...]

UML Diagram:

User

- id: Long
- firstName: String
- lastName: String
- birthday: datetime

+ getName: String
+ getBirthday: datetime
+ setFirstName(firstName: String)
+ setLastName(lastName: String)
+ setBirthday(birthday: datetime)

BirthdayTrackerUI

- menu: BookMenu
- personBookList: List
- yearBookList: List
- nameList: List
- presentList: List
- userId: long

+ openFile(file: String)
+ saveFile(file: String, location: String)

stores   changes

* stores   * stores

1 stored in   1 stored in

YearBook

- id: Long
- fileId: Long
- currentYear: datetime
- collection: list
- changedSinceSaved: boolean

+ addPresentEntry(firstName: String, lastName: String,
    birthday: Datetime, present: String, mento: String)
+ changePresentEntry(id: Long, firstName: String,
    lastName: String, birthday: Datetime, present: String,
    mento: String)
+ deletePresentEntry(id: Long)
+ getNumberOfEntries(): int
+ sortDec()
+ sortInc()
+ getByName(firstName: String, lastName: String)
+ getById(id: Long)
+ getChangedSinceSaved(): boolean

PersonBook

- id: Long
- fileId: Long
- personId: Long
- collection: list
- changedSinceSaved: boolean

+ addPersonEntry(firstName: String, lastName: String,
    birthday: Datetime, relation: String)
+ changePersonEntry(id: Long, firstName: String,
    lastName: String, birthday: Datetime, relation: String)
+ deletePersonEntry(id: Long)
+ getNumberOfEntries(): int
+ sortDec()
+ sortInc()
+ getByName(firstName: String, lastName: String)
+ getById(id: Long)
+ getChangedSinceSaved(): boolean

* stores   * stores

1 stored in   1 stored in

PresentEntry

- id: Long
- birthdayId: Long
- userId: Long
- yearBookId: Long
- currentYear: datetime
- present: String
- mento: String

+ getName(): String
+ getCurrentYear: datetime
+ getPresent: String
+ getMento: String

Person

- id: Long
- firstName: String
- lastName: String
- relationToUser: String
- birthday: datetime

+ getName: String
+ getBirthday: datetime
+ getRelation: String
+ setFirstName(firstName: String)
+ setLastName(lastName: String)
+ setBirthday(birthday: datetime)
+ setRelation(relation: String)