PERSONAL INFORMATION MANAGER

COMP3211

G19

CHENG Cheuk hang	21032932d
FONG Chun Ming	21019558d
FAN Ho Nam	22110264d
WONG Wai Tak	21108992d

Requirements

1. User shall be able to create different types of personal information records
   - *Contacts*
   - *Events*
   - *Plain text*
   - *Tasks*
2. User shall be able to search through the existing personal information records
   - *By a given string*
   - *Before, after, equal to a given time*
   - *Combine search of string and time with logical connectors*
     - And (&&), Or (||), Negation (!)

Requirements (cont.)

3. User shall be able to modify the information of their existing records
4. User shall be able to delete the existing records
5. User shall be able to display all the stored records
6. User shall be able to store and load their records into a file and from a file

Design

- Object Oriented

- Model-View-Controller (MVC) pattern
  - *Separate the system into 3 parts, each is responsible for different and exclusive tasks.*
  - *Improve the encapsulation of each functionality.*

- Controller
  - *Handle user event*
    - User input
  - *Send the user event to the View for displaying update*
  - *Send the user event to the model for data update*

Design (cont.)

- View
  - *Display the selected user event*
    - Help manual, record creation UI, etc
  - *Send View selection update to Controller*
  - *Send user input information to Model for logic and data processes*

- Model
  - *Logical and data operation*
    - Create information record, search logic, store record to file
    - Send update to View for feedback to user

Unit tests

- Coverage
  - *Ensure that tests cover the functionalities provided by the system.*
    - Include testing methods and conditional branches
- Boundary Conditions
  - *Test edge cases*
    - Null inputs
- Independence
  - *Tests are independence*
    - 1 test for 1 method

Unit tests (cont.)

- Object class testing
  - *Testing object get and set functionality*
- Automate tests components
  - *Tests after every modification to the system*
  - *Ensure the integrity of the whole system*