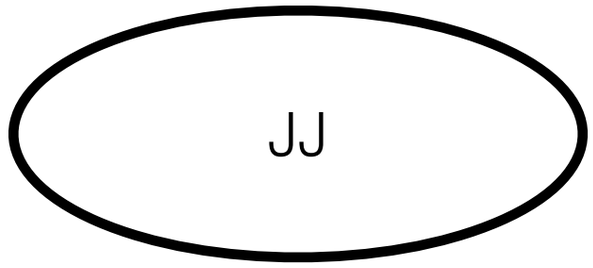
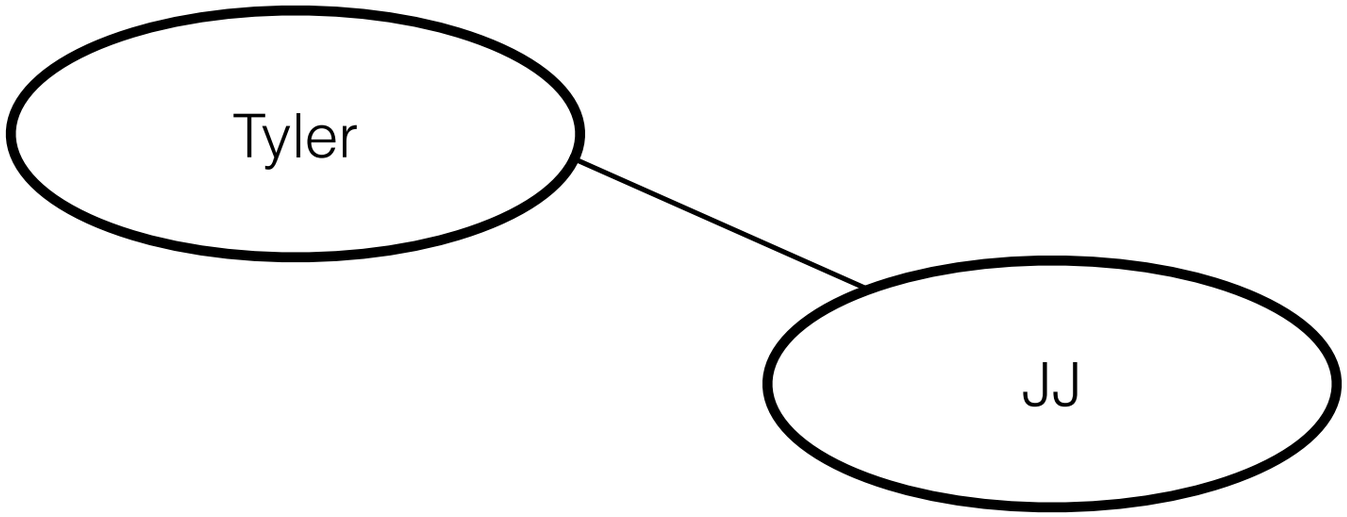
YEAH session #7

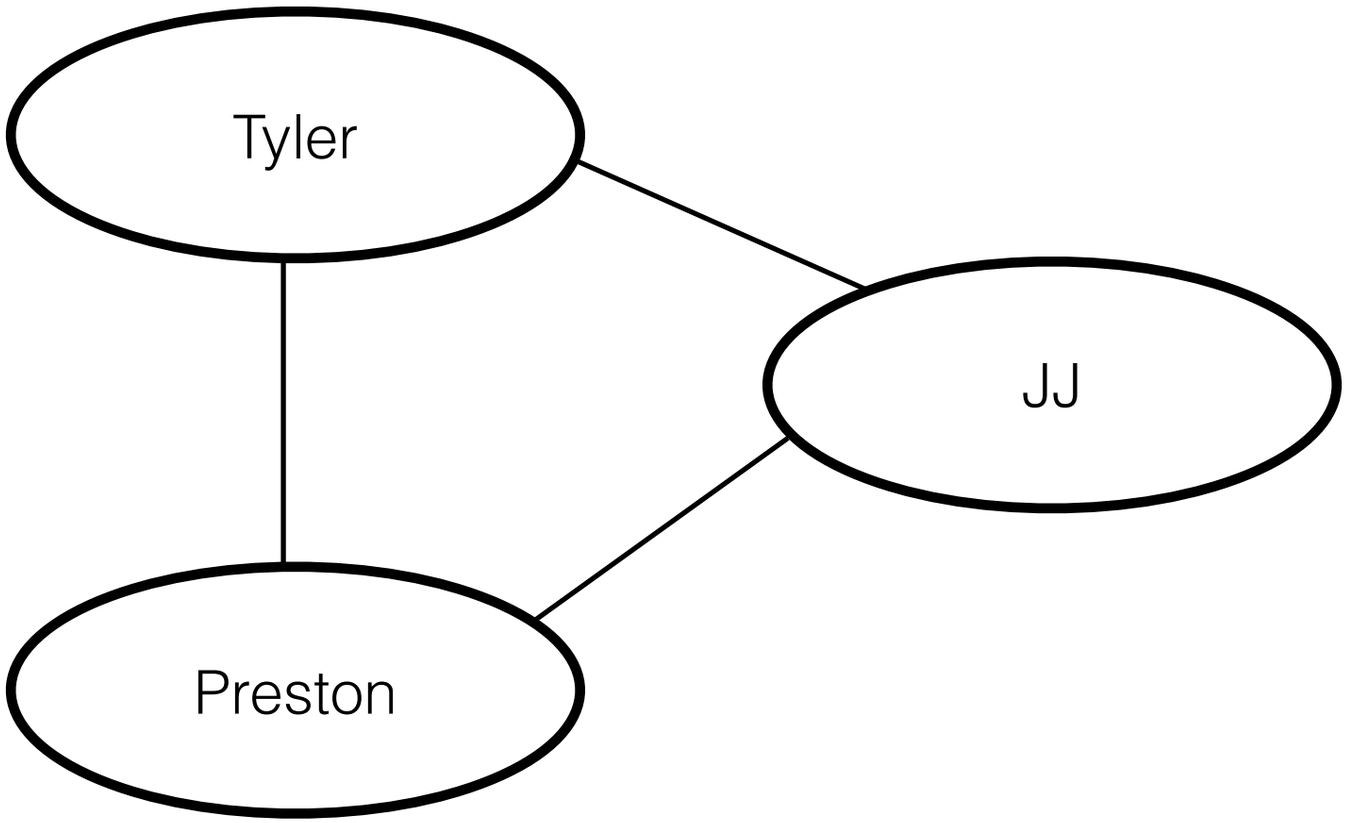
16 March 2014, 7p-8p

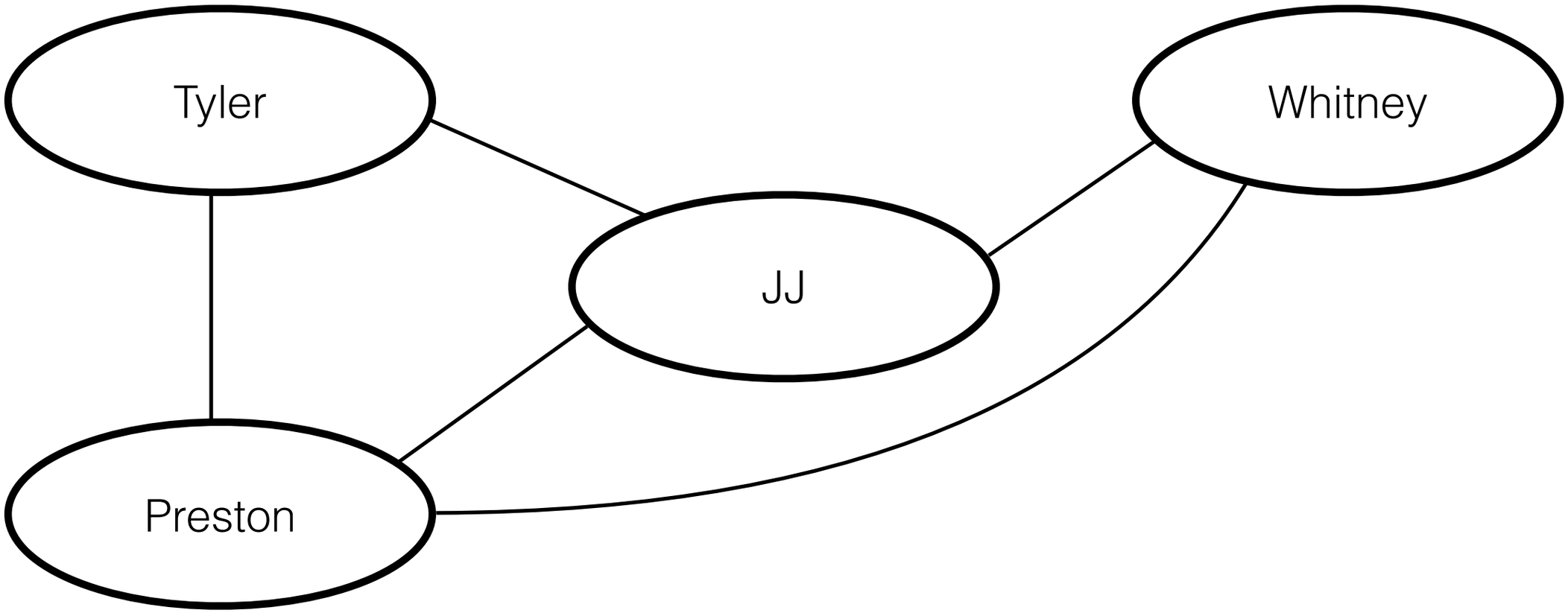
Miles Seiver and Whitney LaRow

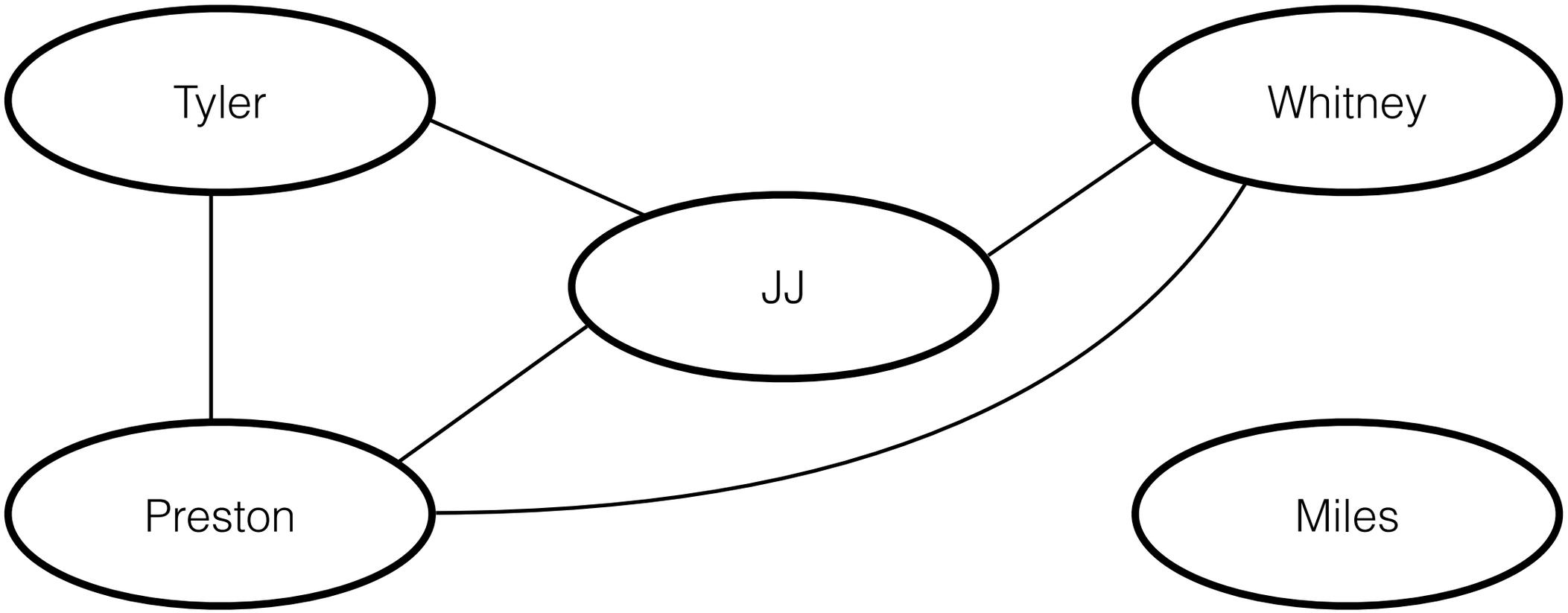
social networks

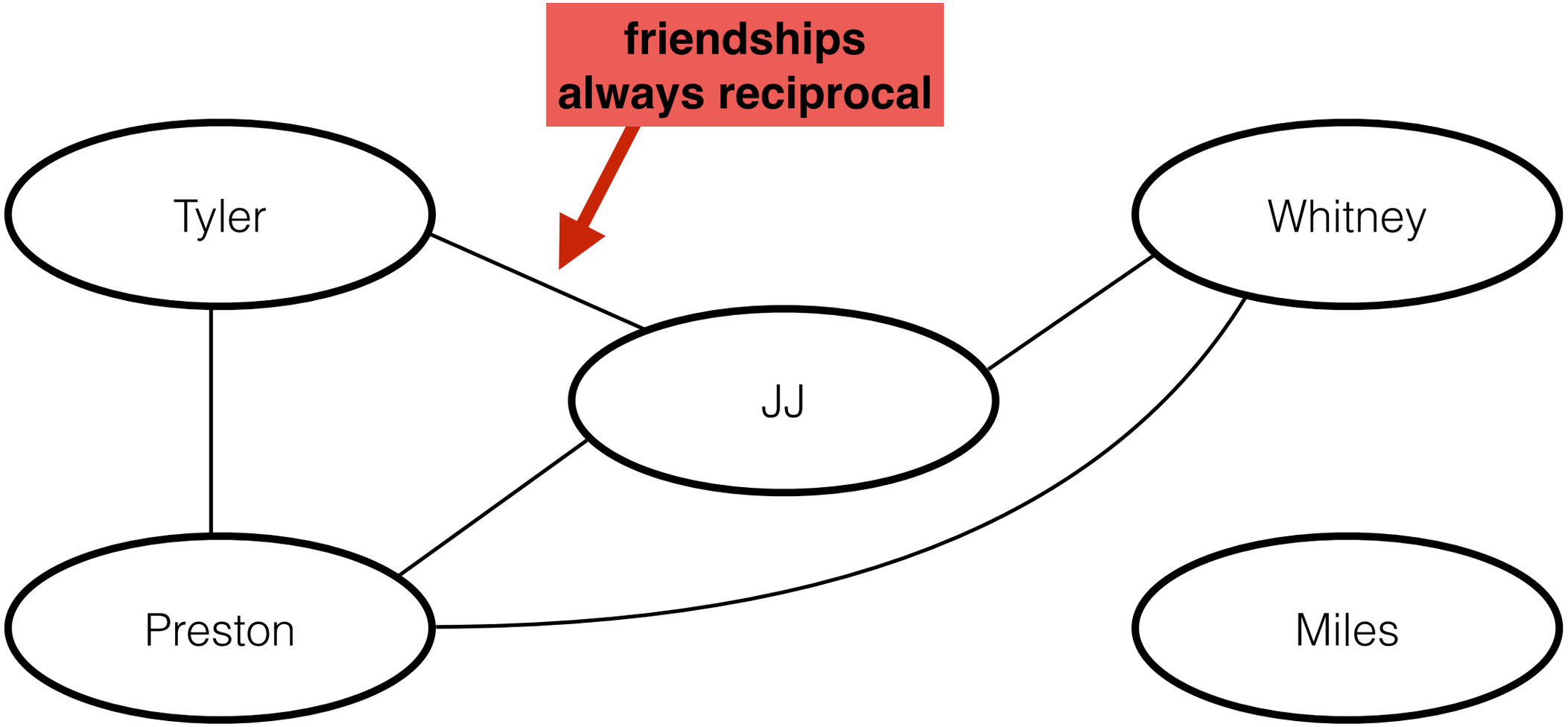

JJ

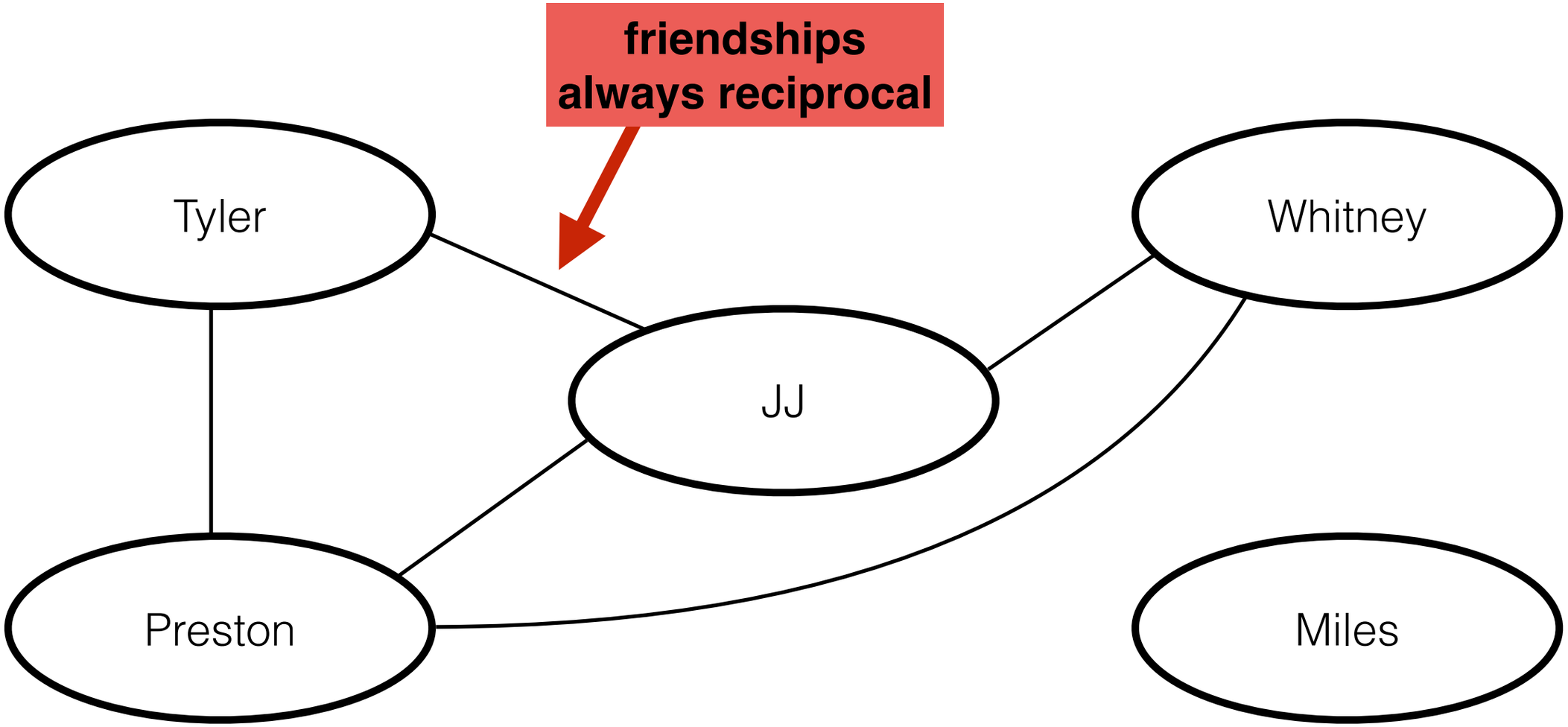

Tyler
JJ


Tyler
JJ
Preston

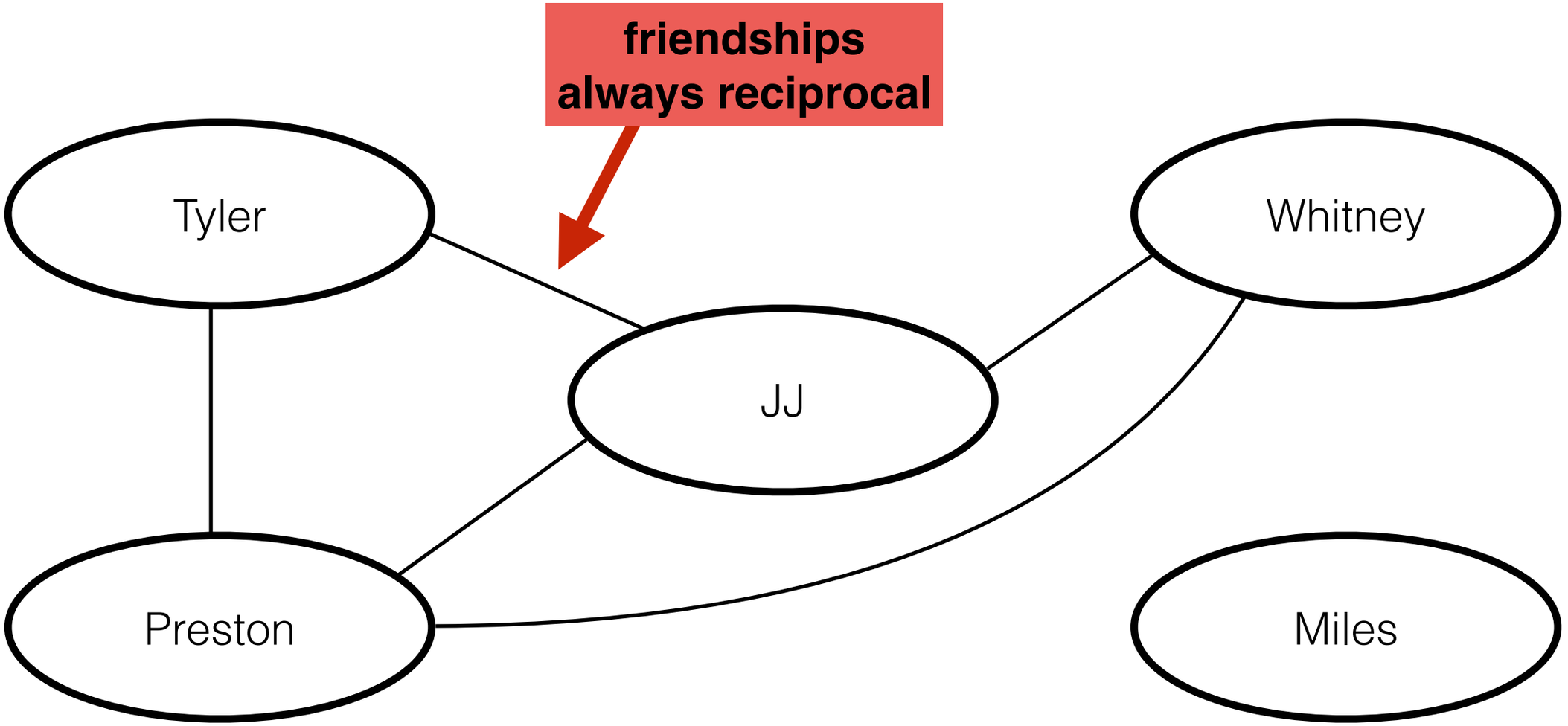

Tyler
Whitney
JJ
Preston

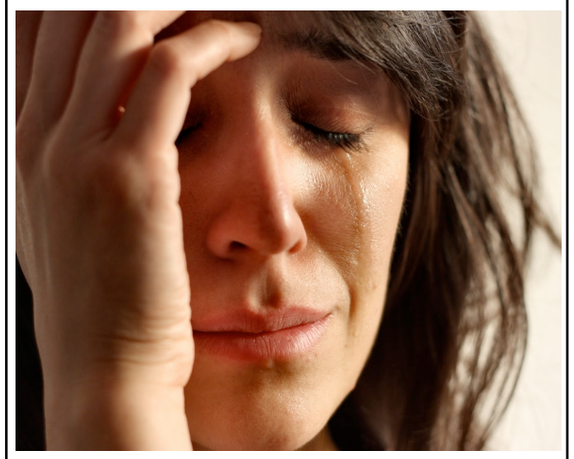

Tyler
Whitney
JJ
Preston
Miles


friendships
always reciprocal
Tyler
Whitney
JJ
Preston
Miles



Tyler's friends:	JJ's friends:	Whitney's friends:	Miles's friends:
JJ Preston	Whitney Tyler Preston	JJ Preston	



Tyler's friends:	JJ's friends:	Whitney's friends:	Miles's friends:
JJ Preston	Whitney Tyler Preston	JJ Preston	

the assignment

FacePamphlet

due Friday, 21 March

@ 11:30am

FacePamphlet

due Friday, 21 March

@ 11:30am

FacePamphlet

due Friday, 21 March

@ 11:30am

No late submissions will be accepted.

FacePamphlet

due Friday, 21 March

@ 11:30am

No late submissions will be accepted.
No late days may be used.

Java concepts you'll use

Java concepts you'll use

`GImage`

Java concepts you'll use

`GImage`

interactors

Java concepts you'll use

`GImage`

interactors

graphics

Java concepts you'll use

`GImage`

social network

data structures

interactors

graphics

Java concepts you'll use

`GImage`

social network

data structures

iterators

interactors

graphics

Java concepts you'll use

`GImage`

social network

data structures

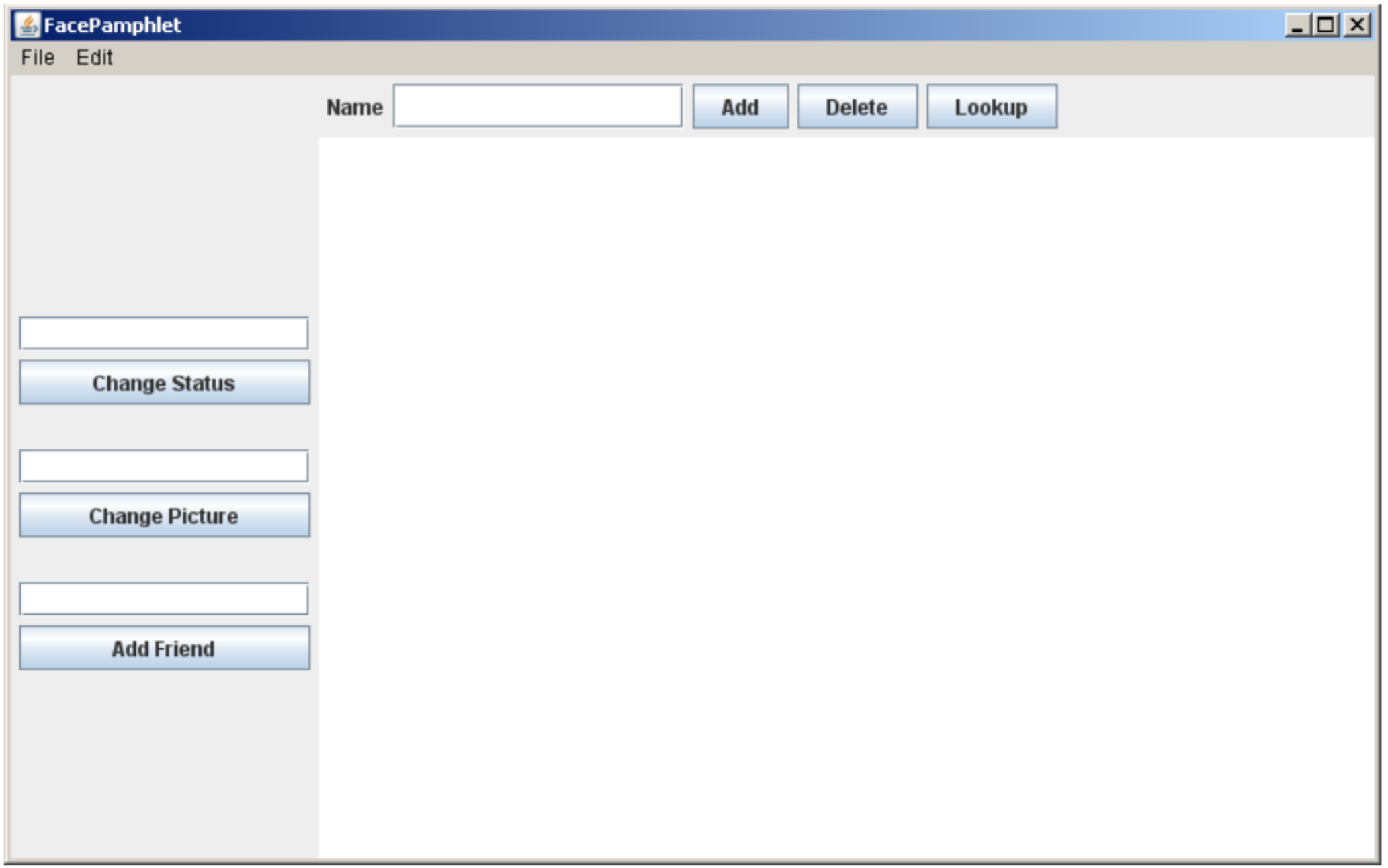
iterators

interactors

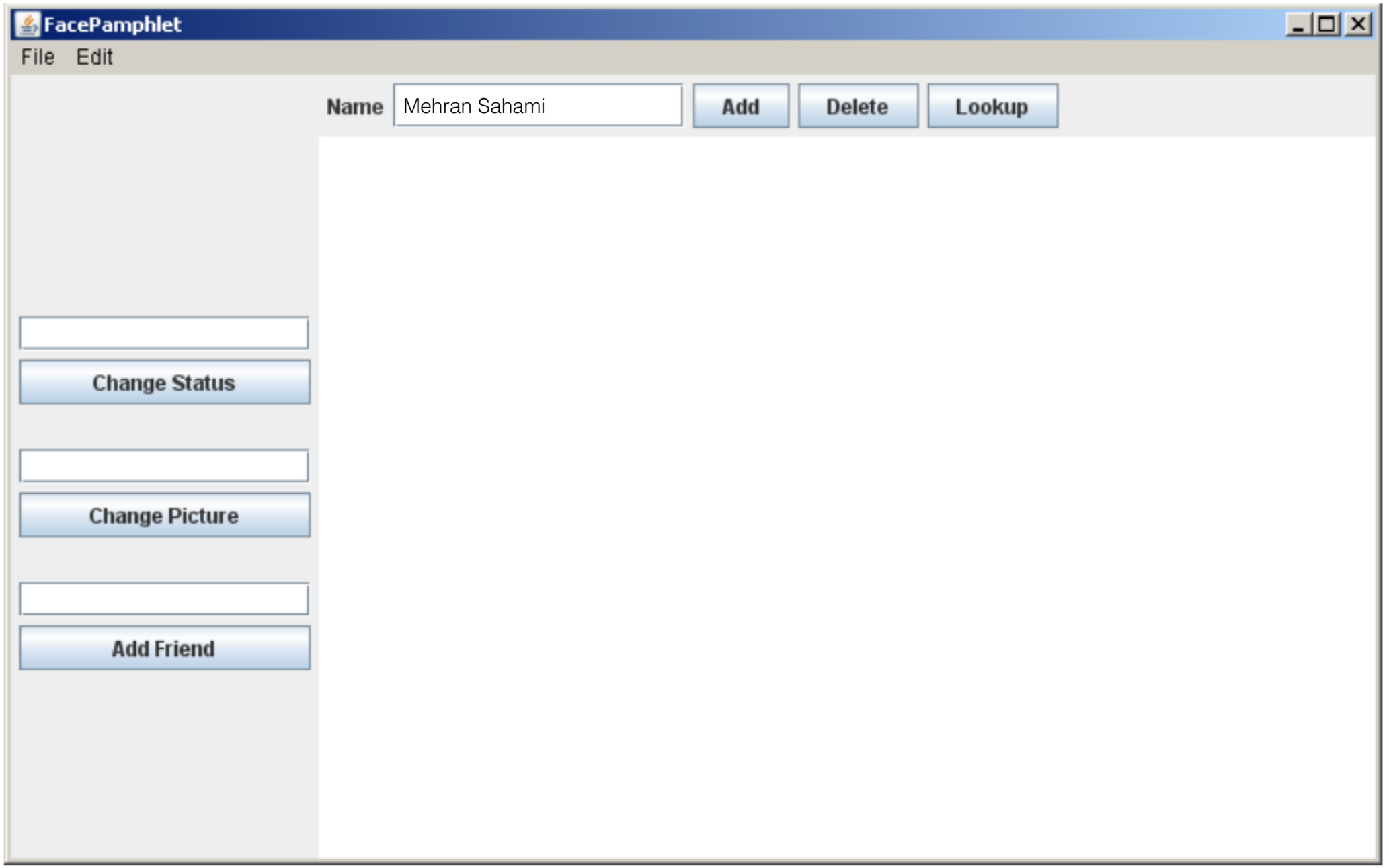
graphics

the program

Create a profile



Create a profile



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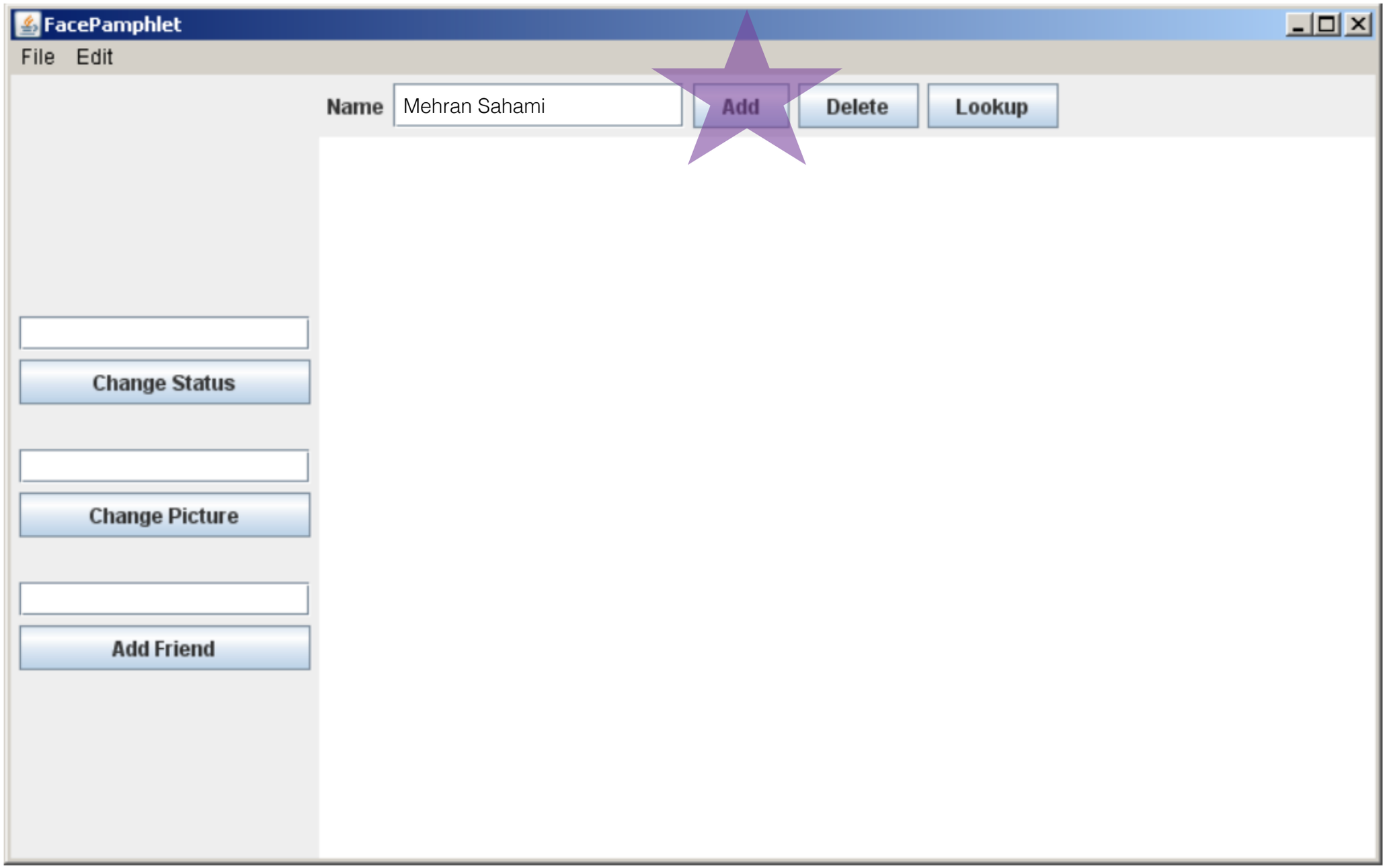

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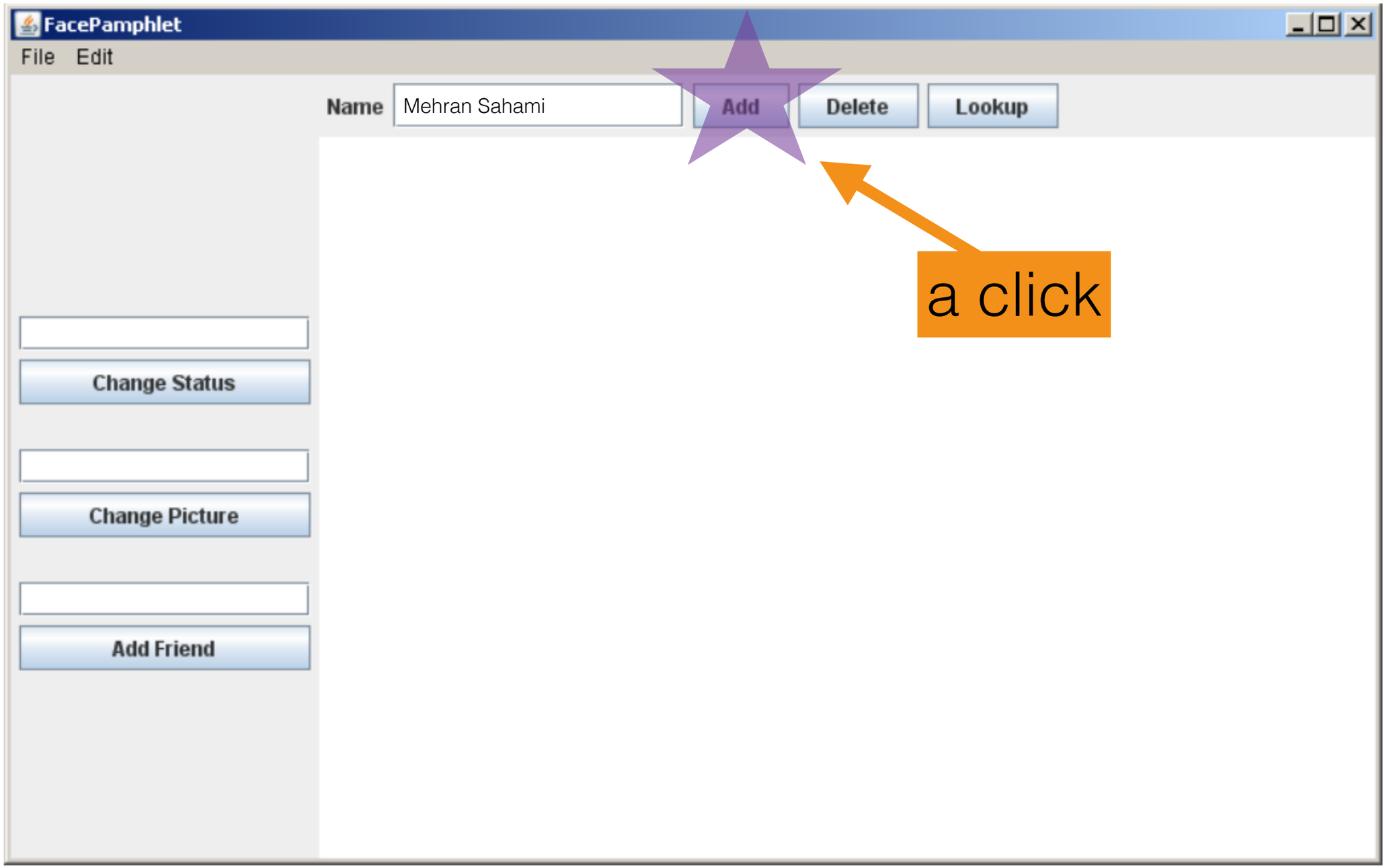
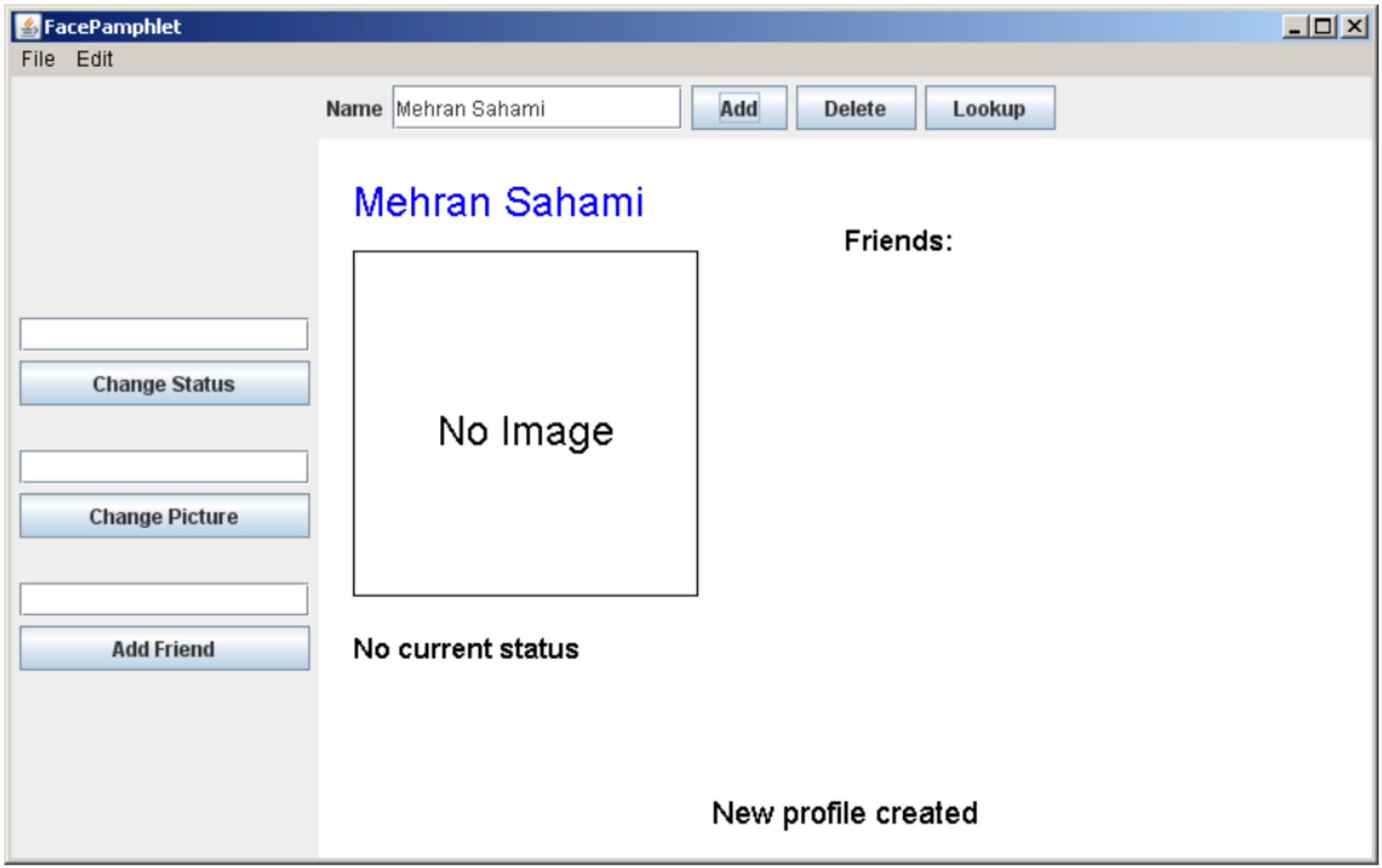
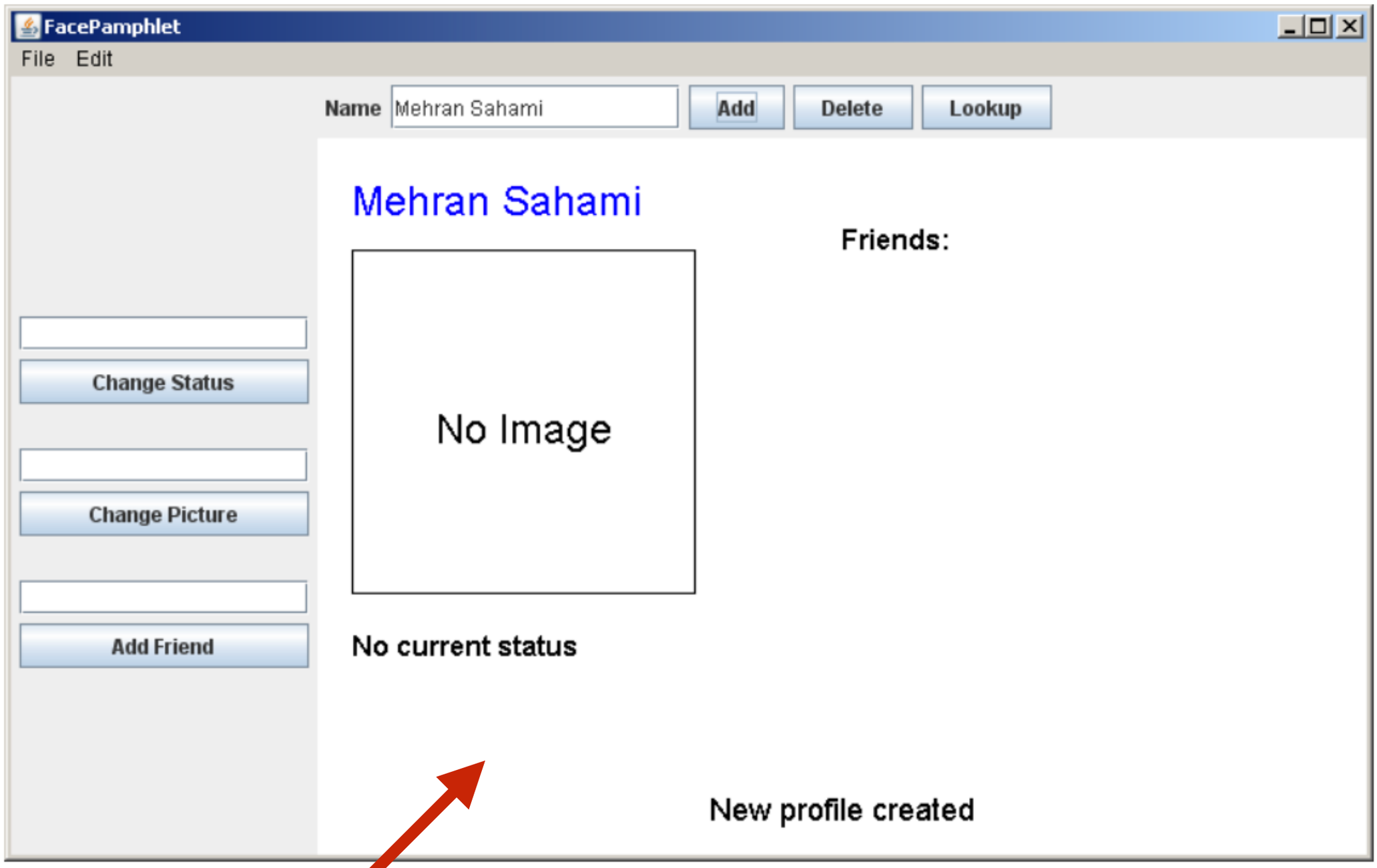


Lookup an existing profile

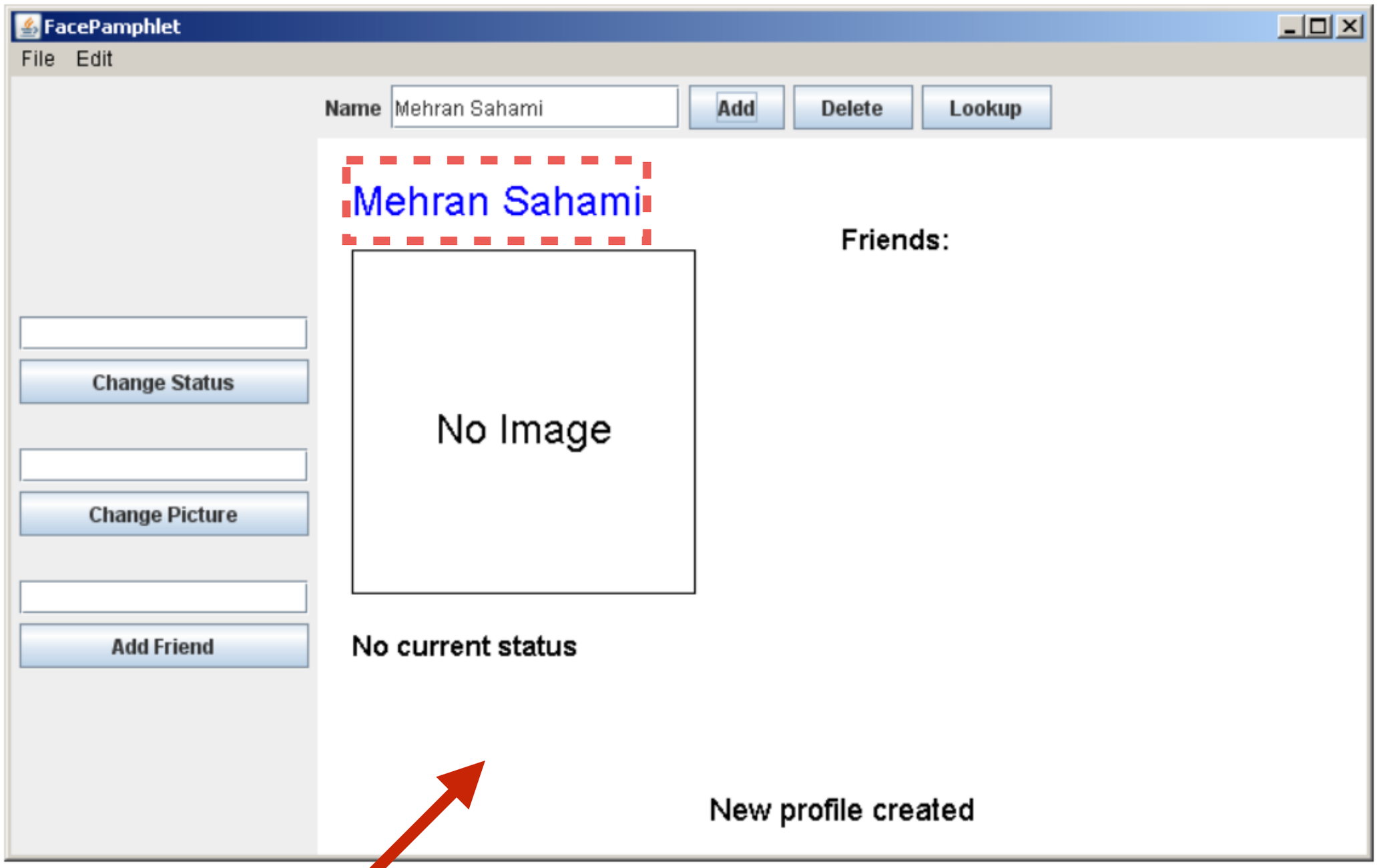


Lookup an existing profile



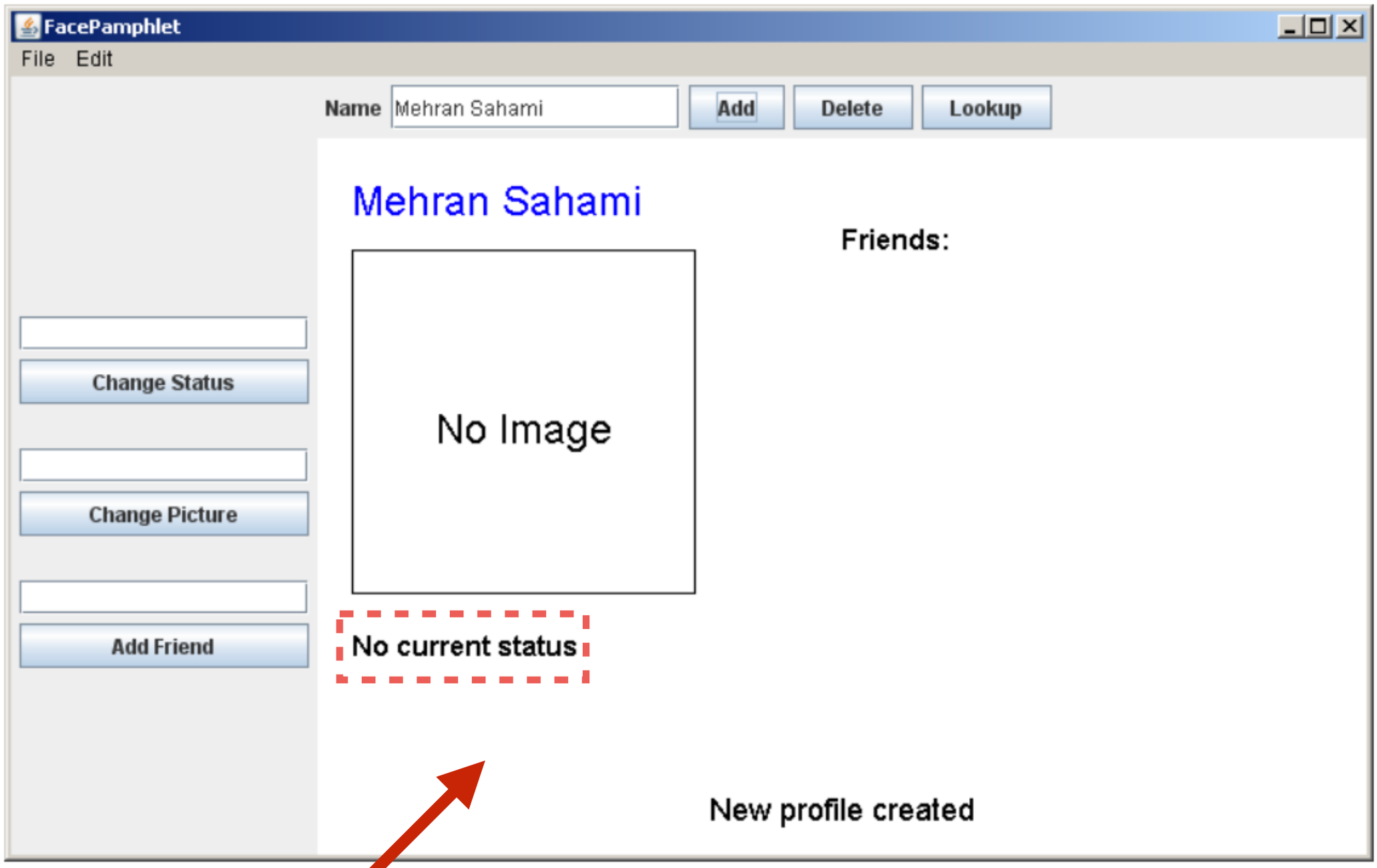
`FacePamphletCanvas`

Lookup an existing profile



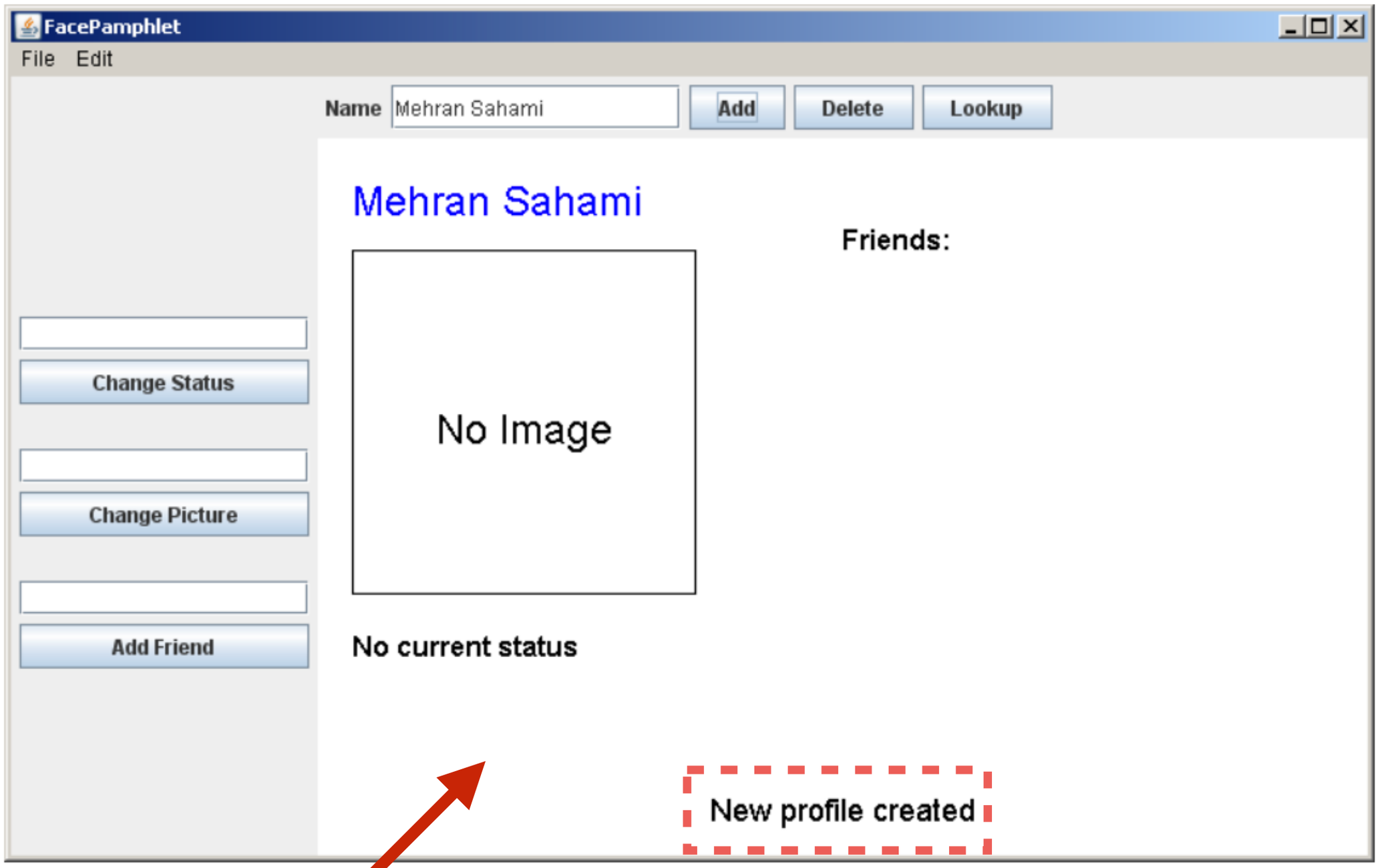
`FacePamphletCanvas`

Lookup an existing profile



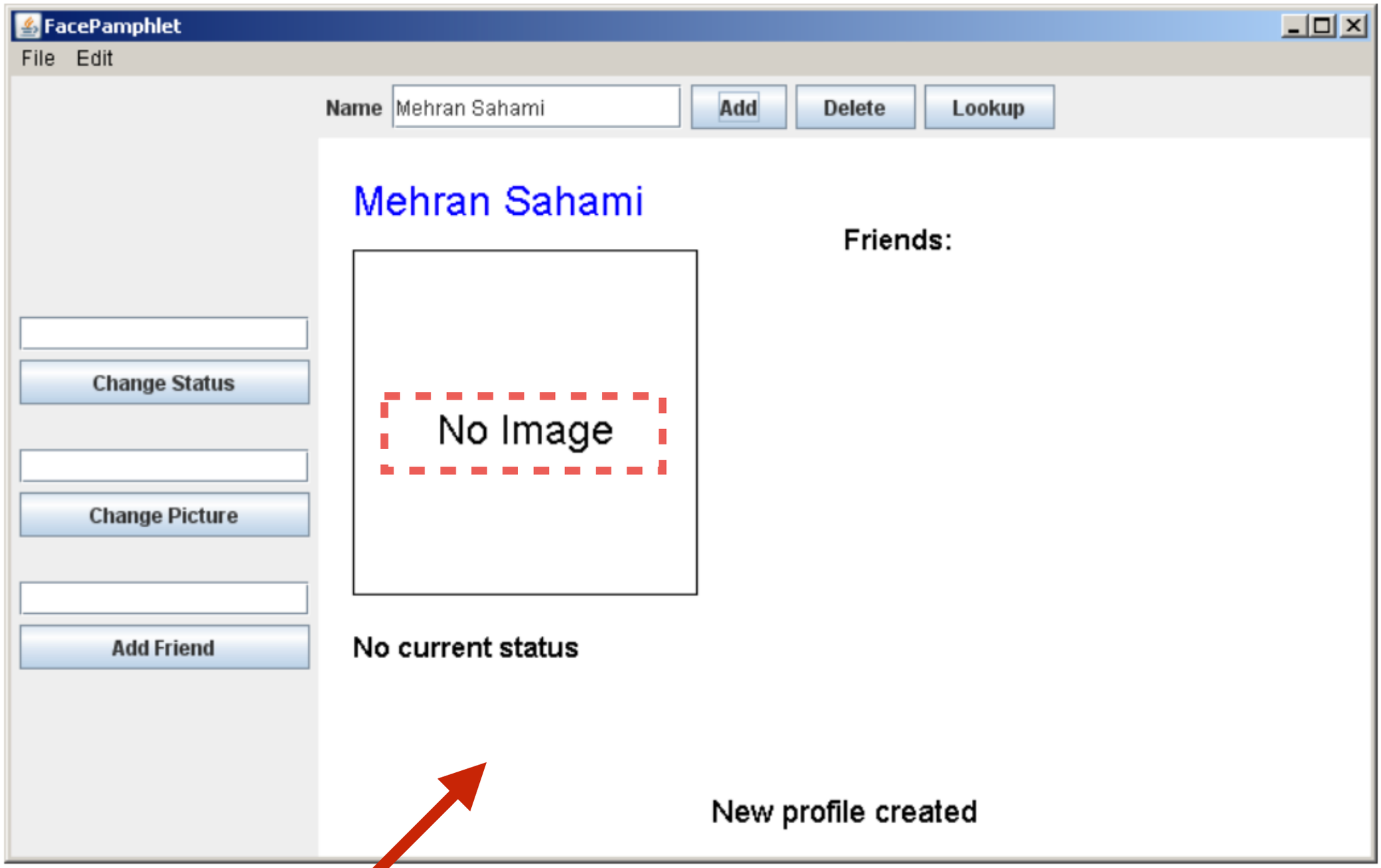
`FacePamphletCanvas`

Lookup an existing profile



`FacePamphletCanvas`

Lookup an existing profile



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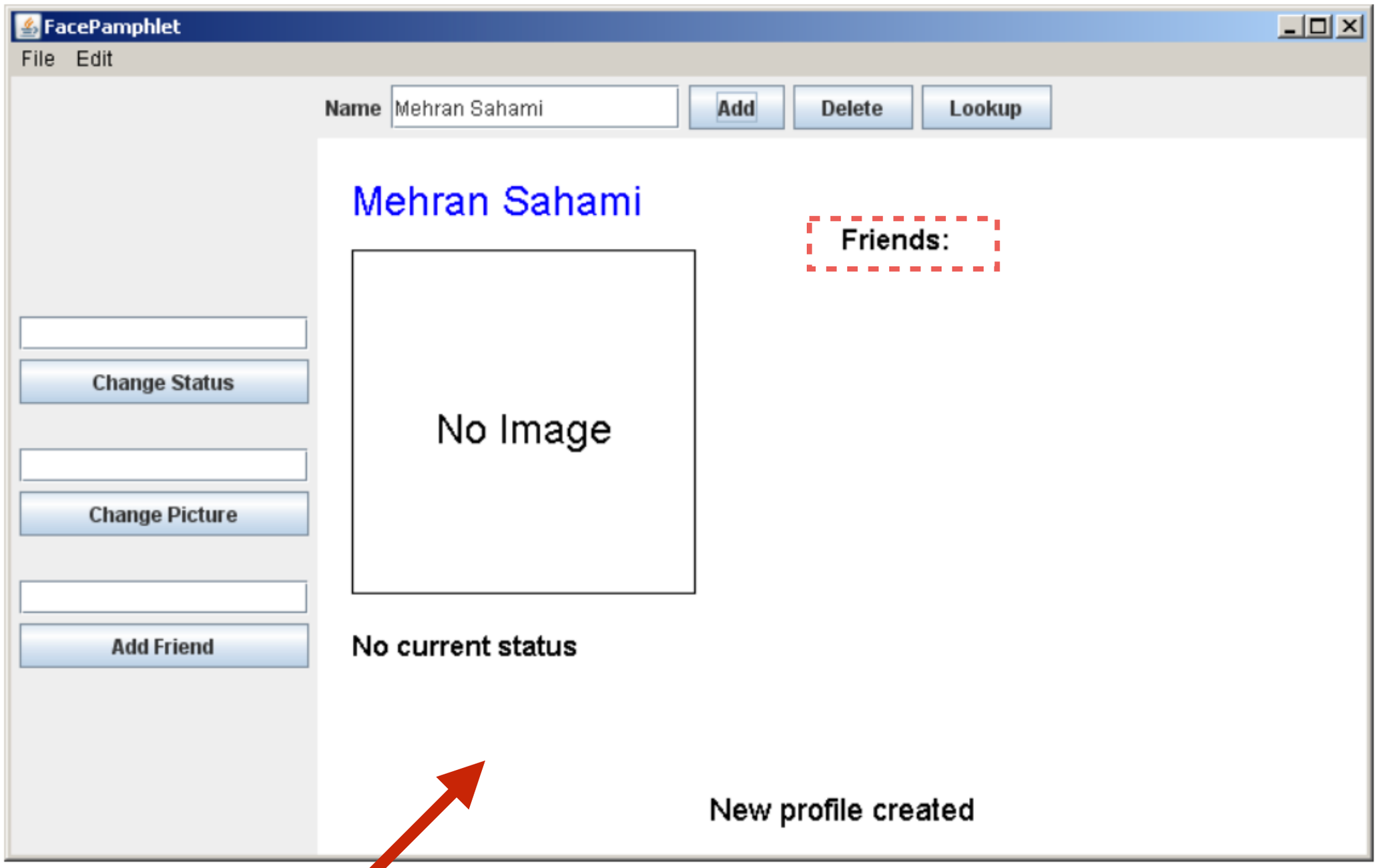

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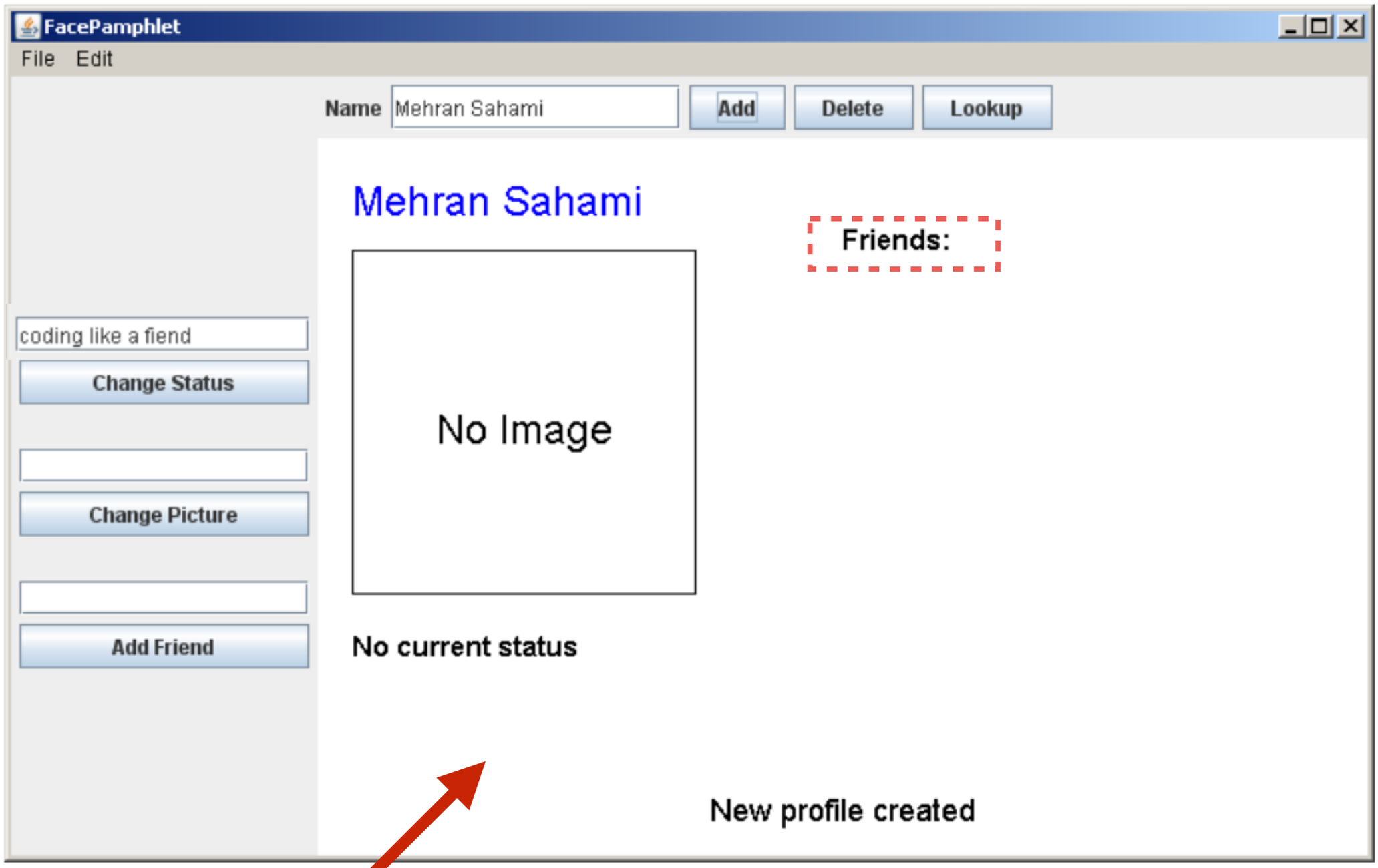

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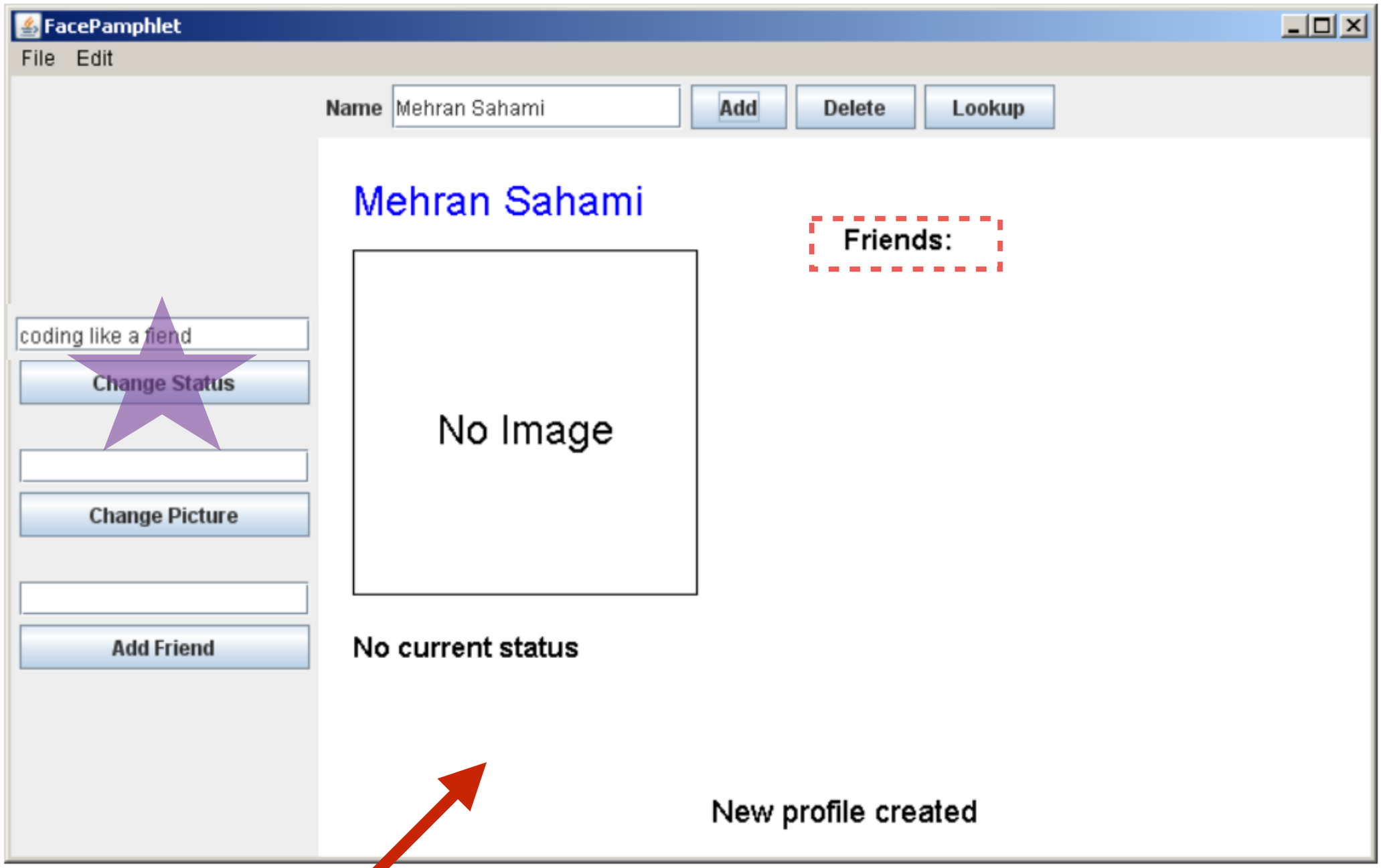
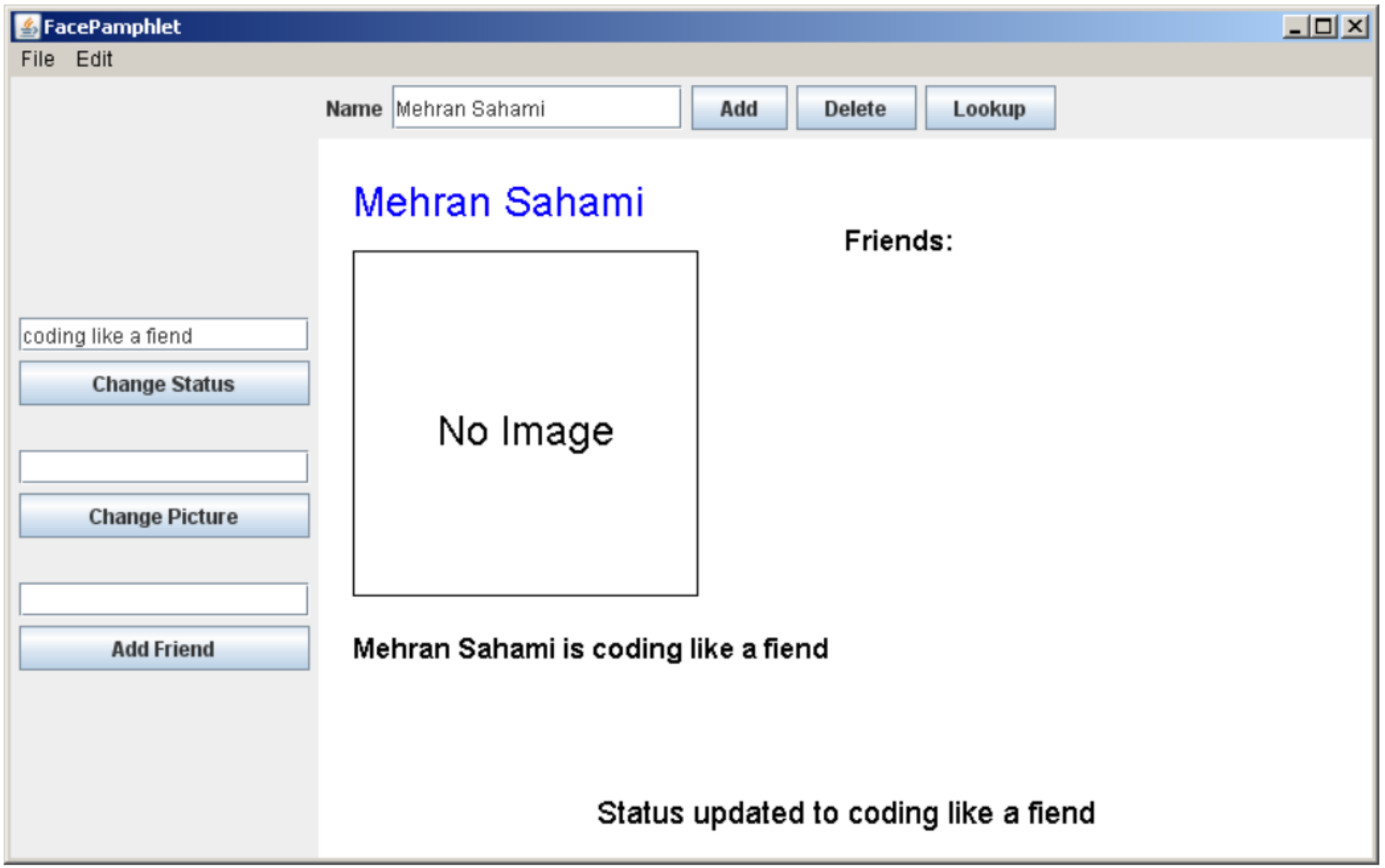
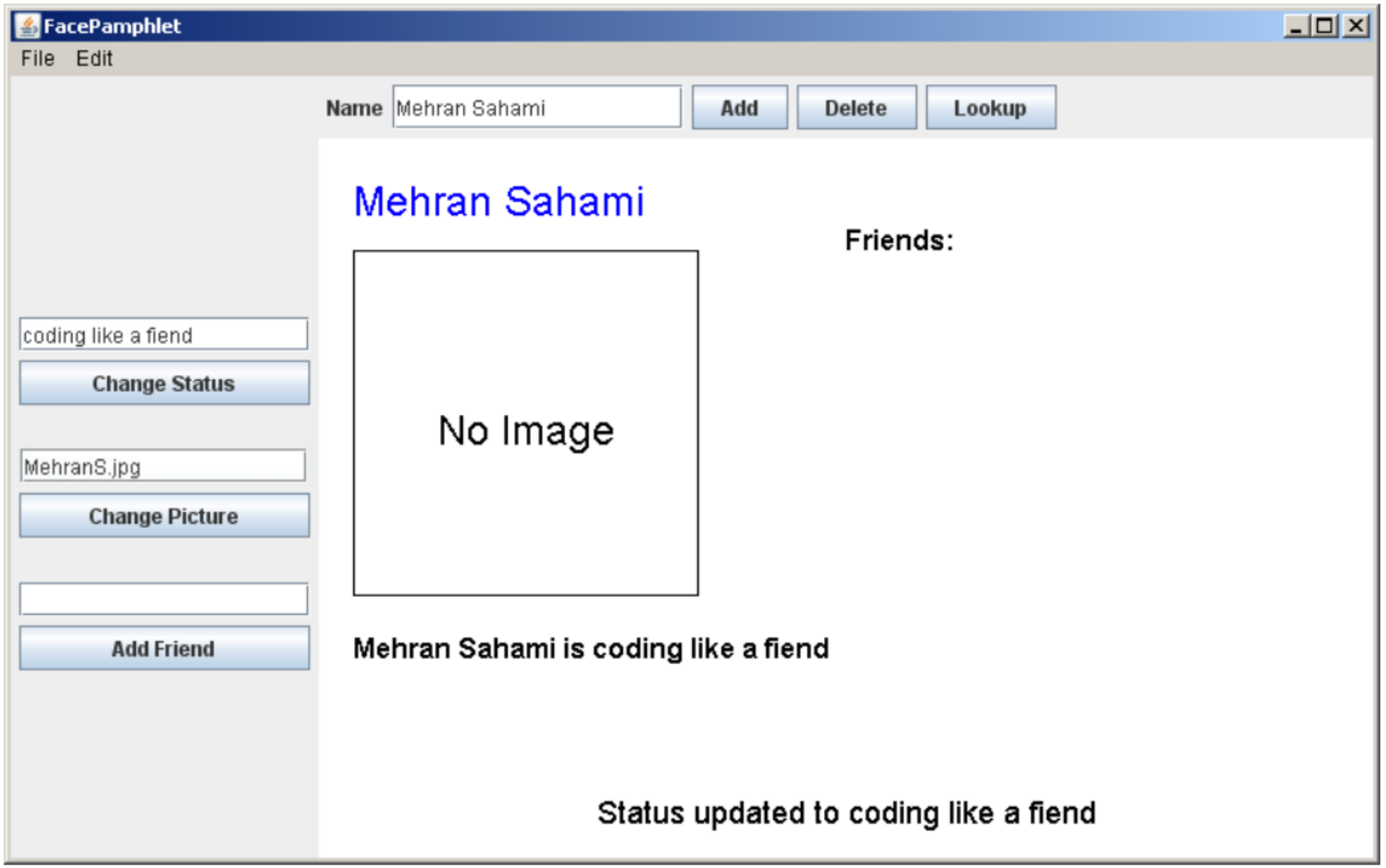


`FacePamphletCanvas`

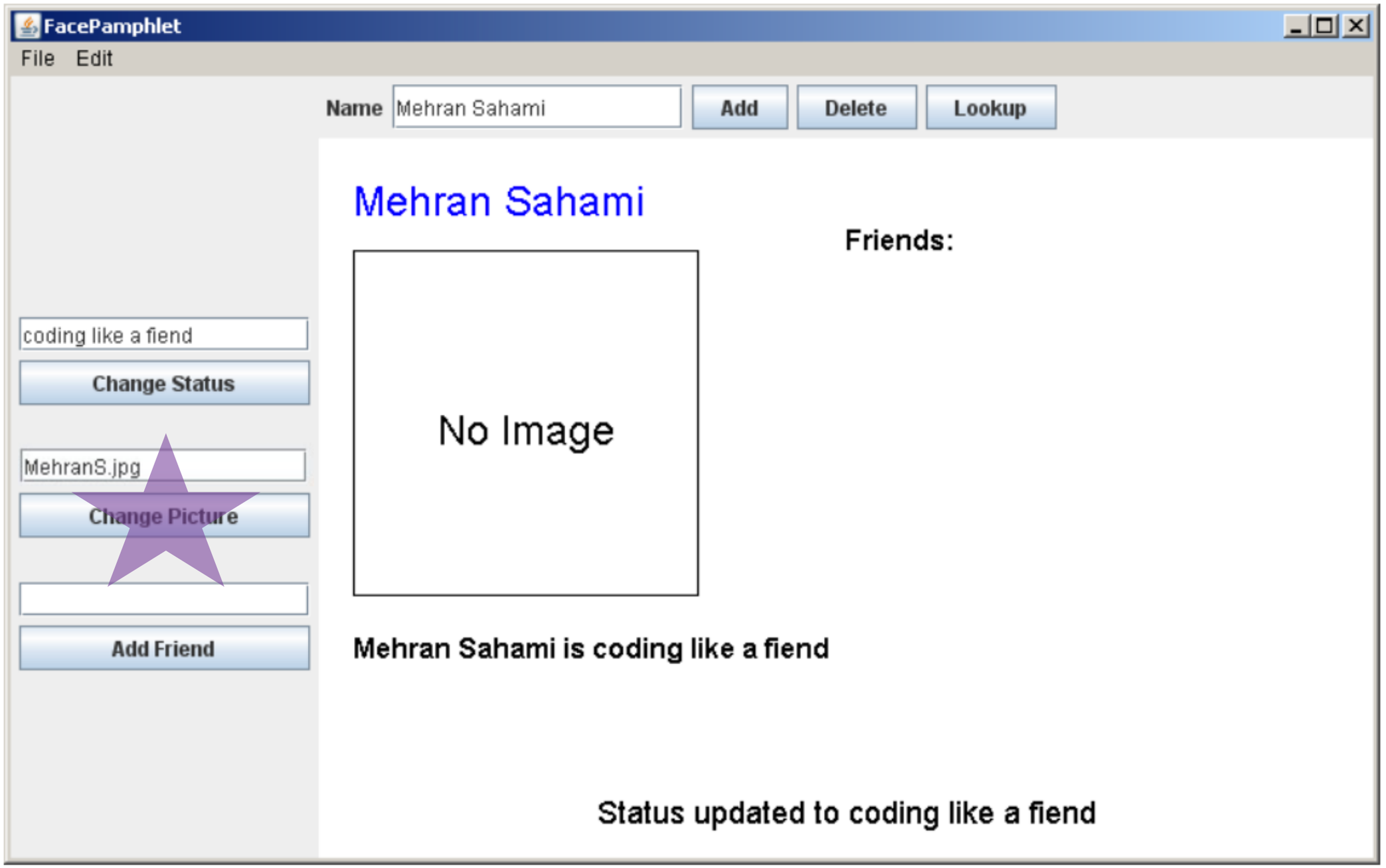
Change a picture



Change a picture



Change a picture

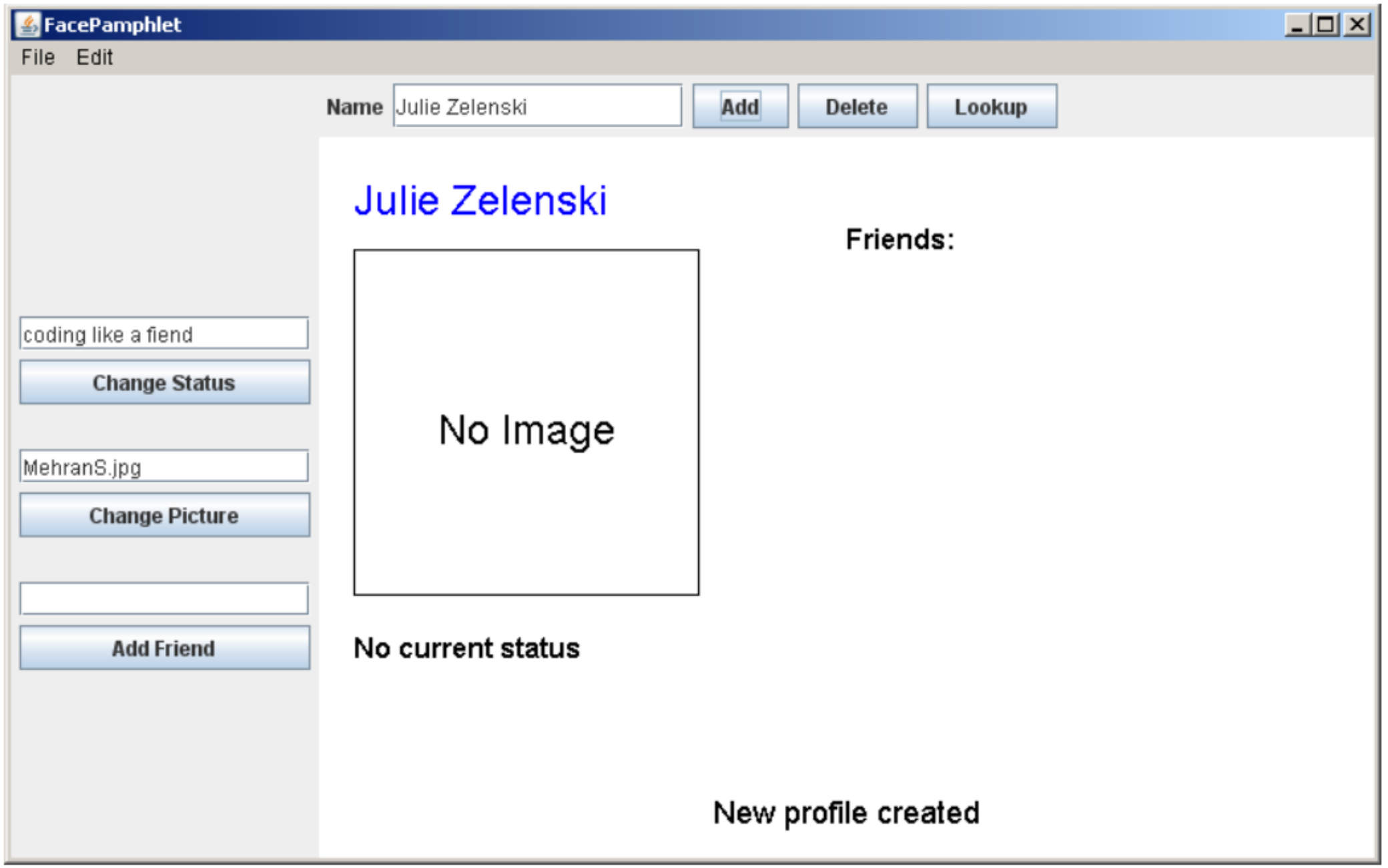


Create another profile

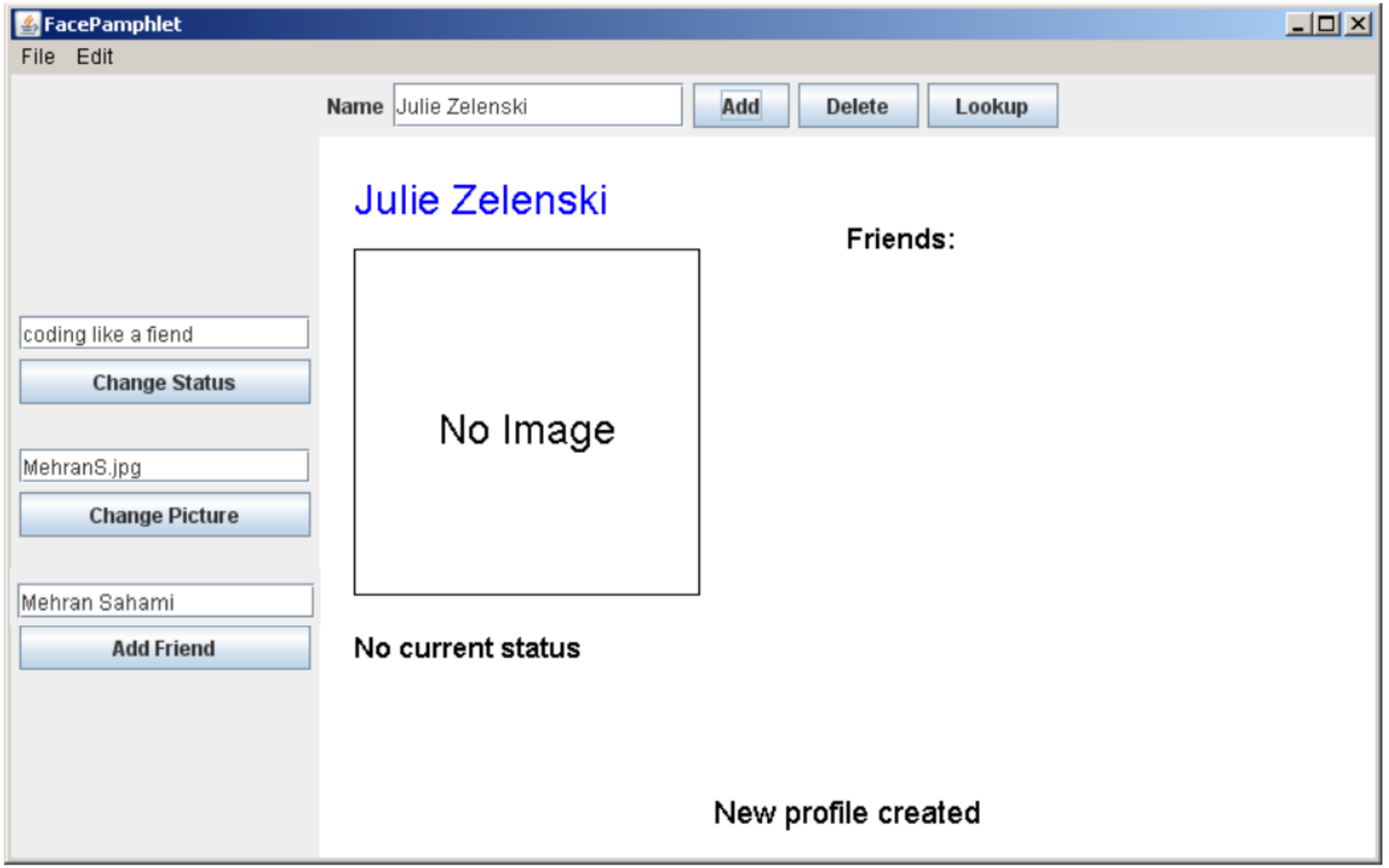
Create another profile

Create another profile

Add a friend


FacePamphlet
File
Edit
Name
Julie Zelenski
Add
Delete
Lookup
Julie Zelenski
Friends:
coding like a fiend
Change Status
No Image
MehranS.jpg
Change Picture
Add Friend
No current status
New profile created

Add a friend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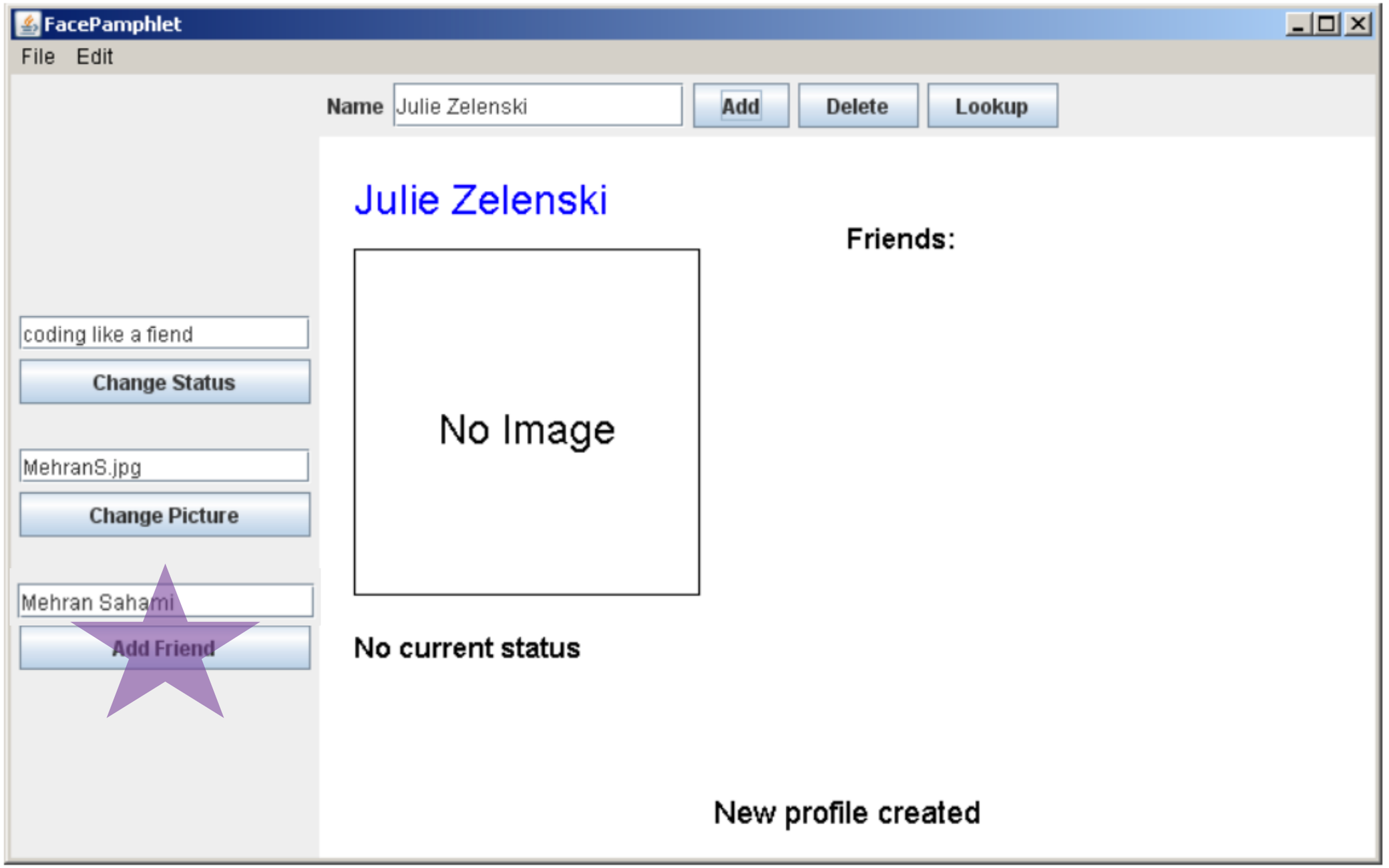
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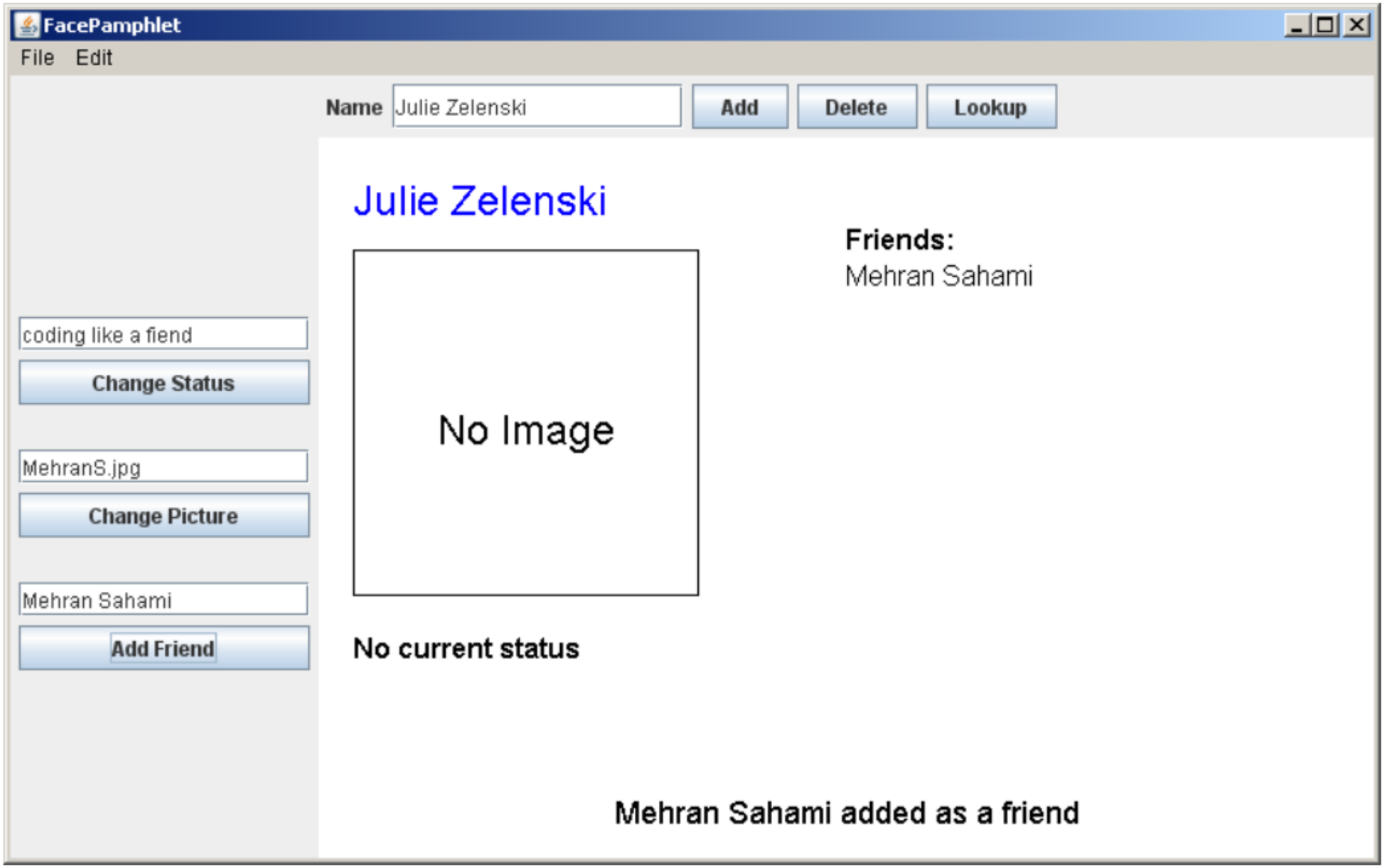
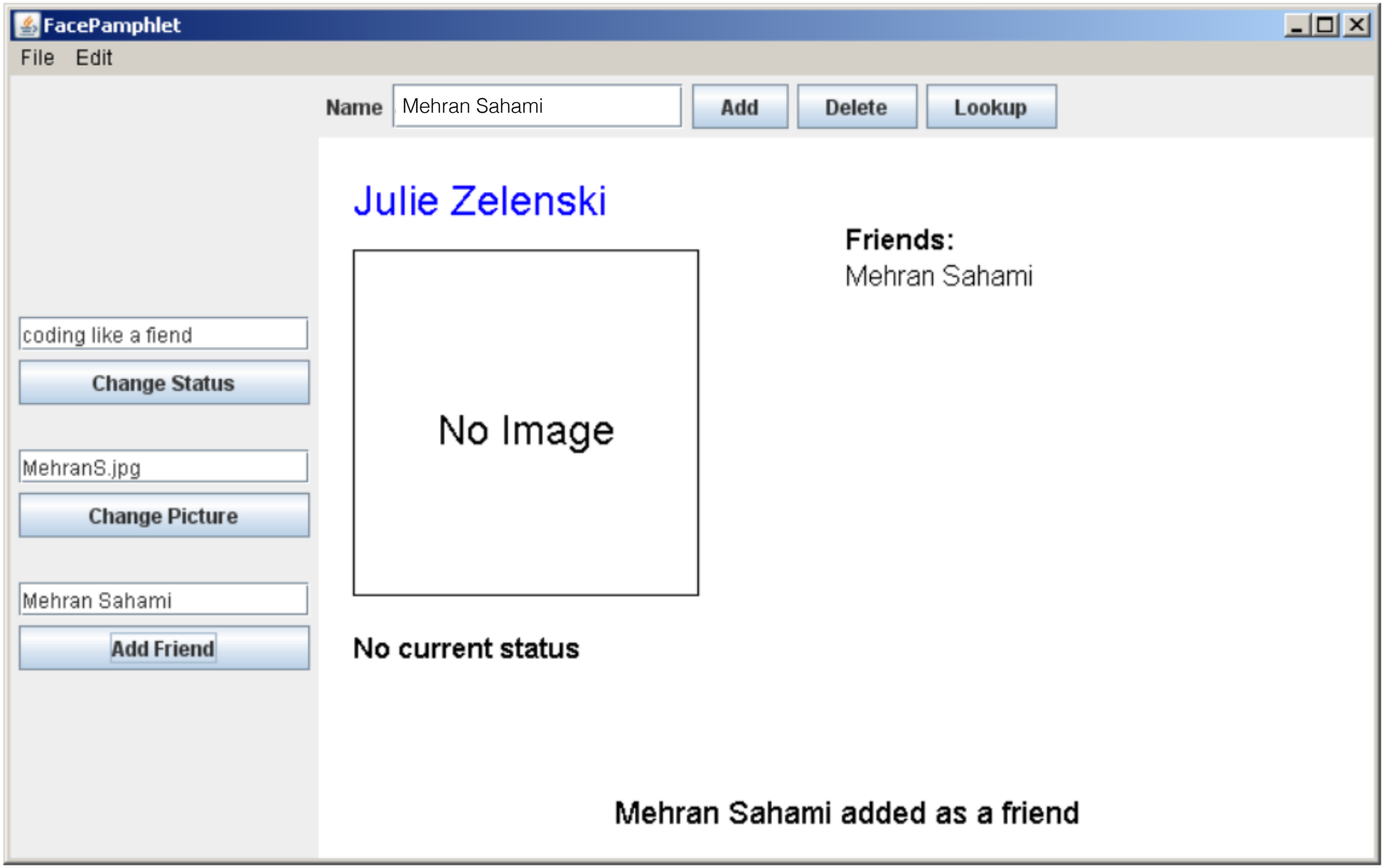
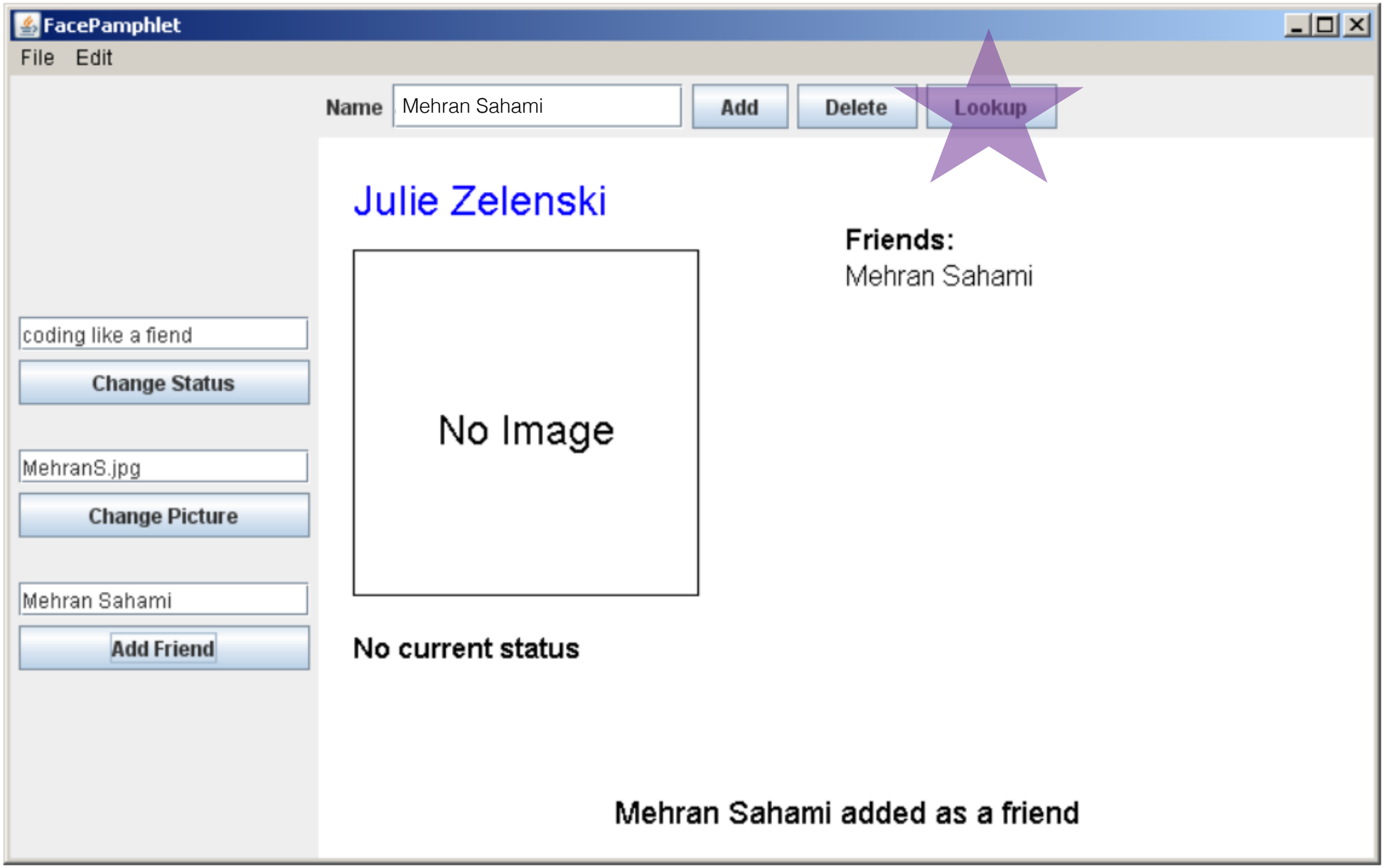


Lookup an existing profile



Lookup an existing profile



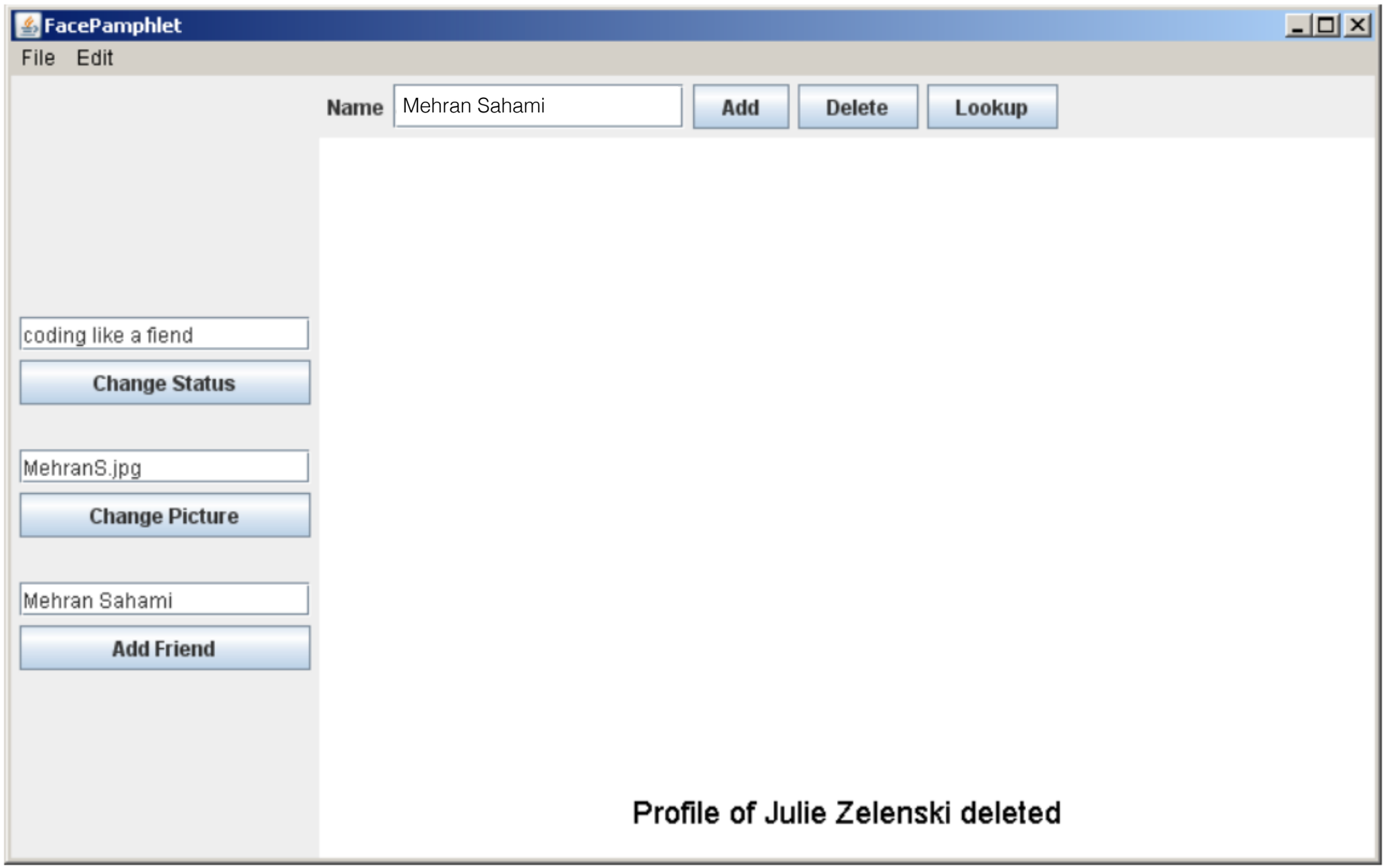
Delete a profile

Delete a profile

Delete a profile

Lookup an existing profile

Lookup an existing profile



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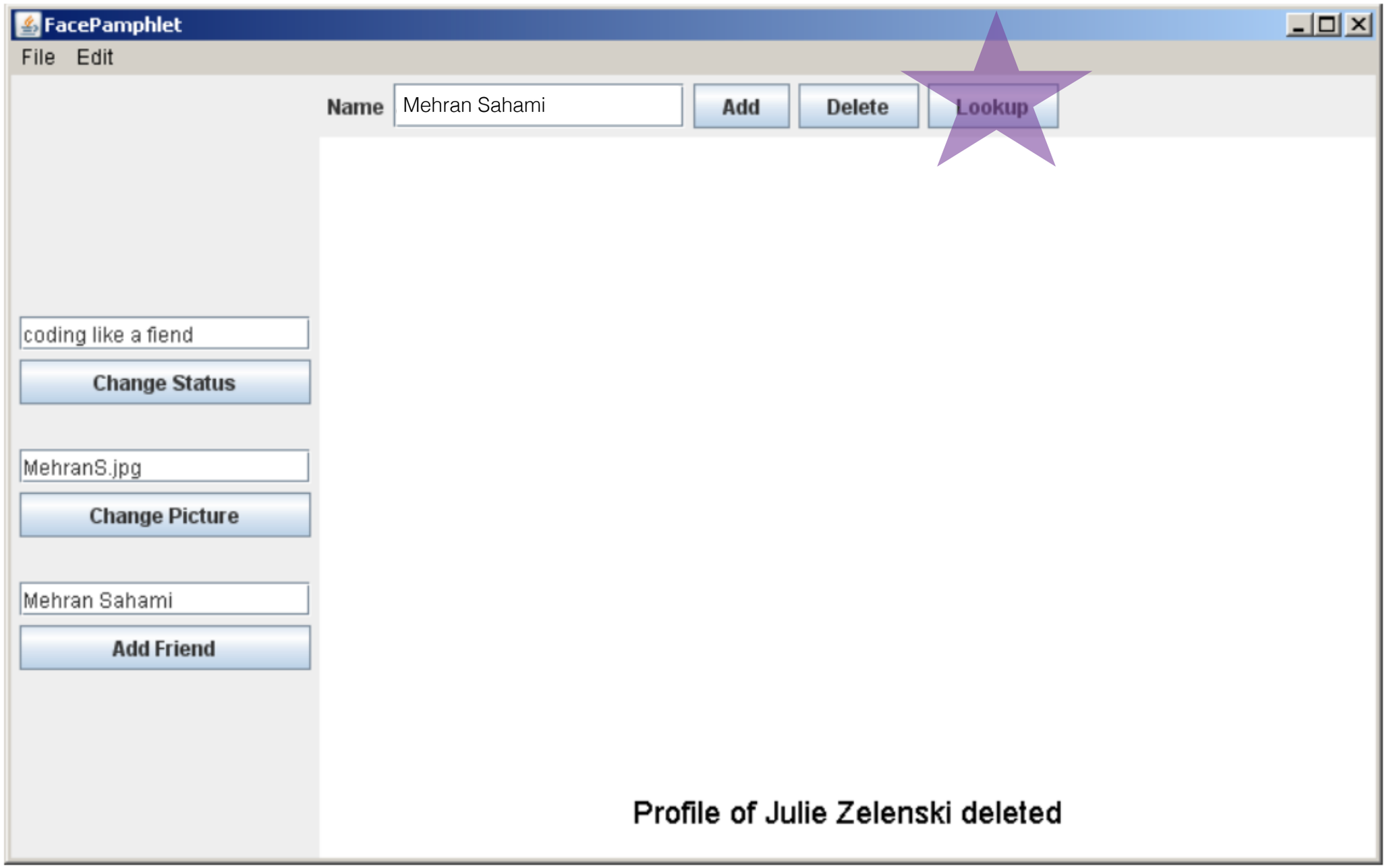

FacePamphlet
File
Edit
Name
Mehran Sahami
Add
Delete
Lookup
Mehran Sahami
Friends:
coding like a fiend
Change Status
MehranS.jpg
Change Picture
Mehran Sahami
Add Friend
Mehran Sahami is coding like a fiend
Displaying Mehran Sahami

FacePamphlet
File
Edit
Name
Mehran Sahami
Add
Delete
Lookup
Mehran Sahami
Friends:
coding like a fiend
Change Status
MehranS.jpg
Change Picture
Mehran Sahami
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Displaying Mehran Sahami

FacePamphlet
File
Edit
Name
Julie Zelenski
Add
Delete
Lookup
Mehran Sahami
Friends:
coding like a fiend
Change Status
MehranS.jpg
Change Picture
Mehran Sahami
Add Friend
Mehran Sahami is coding like a fiend
Displaying Mehran Sahami

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MehranS.jpg
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Mehran Sahami is coding like a fiend
Displaying Mehran Sahami

give

give

give

get

get

get

A B C D E F G H I J K L M N

O P Q R S T V W X Y Z

John Doe
123 Main St
Anywhere US 10111

Date 01/01/200

PAY TO THE ORDER OF The Sandwich Shop $ 8.15

Eight and 15/100 DOLLARS

Your Bank
456 Main St
Anywhere US 10111

MEMO Lunch with friends

John Doe

⑆ 123956789 ⑆ 1001001239⑈ 0790

ing

error checking!

FacePamphlet
File
Edit
Name
Add
Delete
Lookup
Mehran Sahami
Friends:
coding like a fiend
Change Status
MehranS.jpg
Change Picture
Mehran Sahami
Add Friend
Mehran Sahami is coding like a fiend
Displaying Mehran Sahami

(recap: we just deleted Julie Zelenski)

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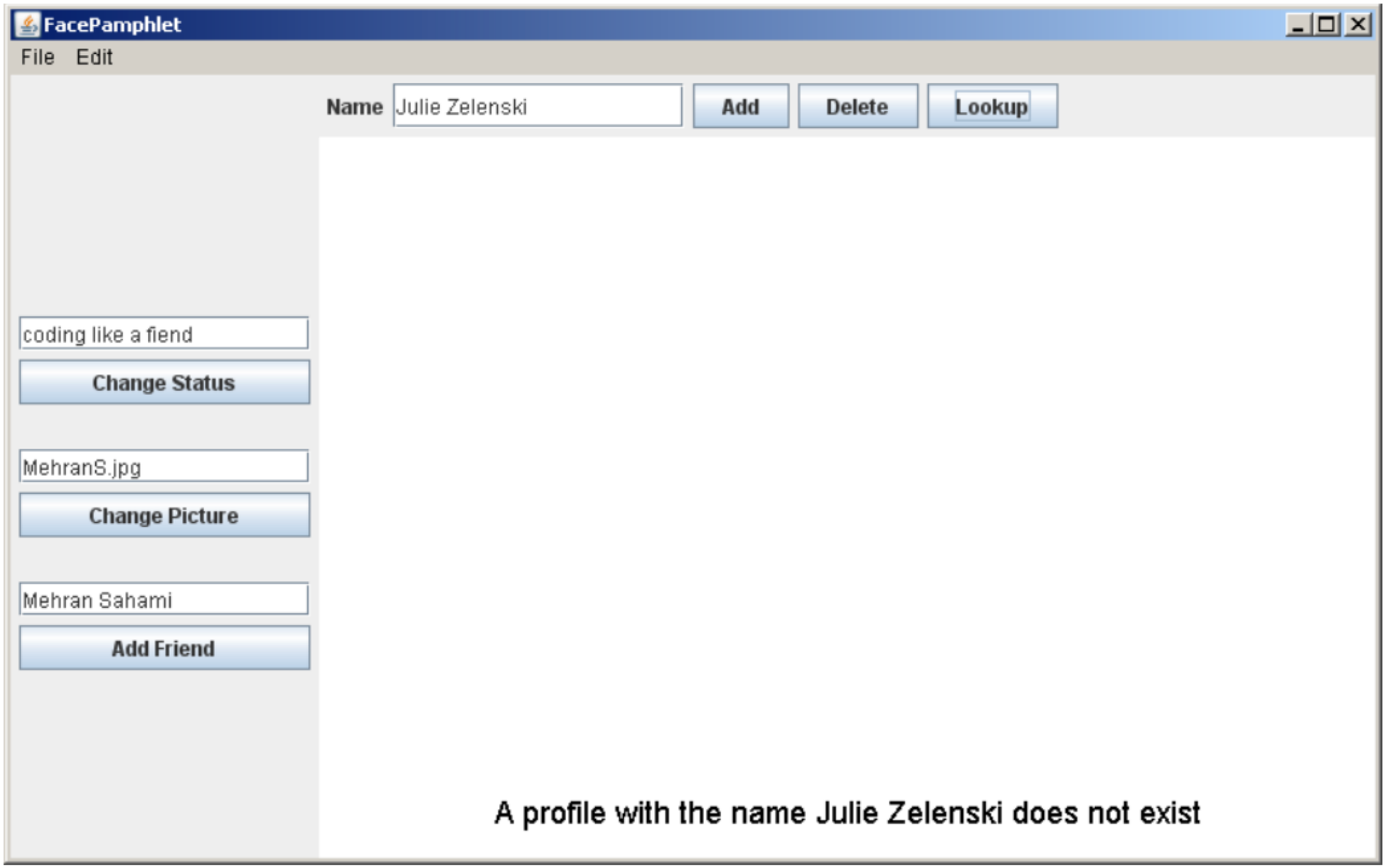
FacePamphlet
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Edit
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Add
Delete
Lookup
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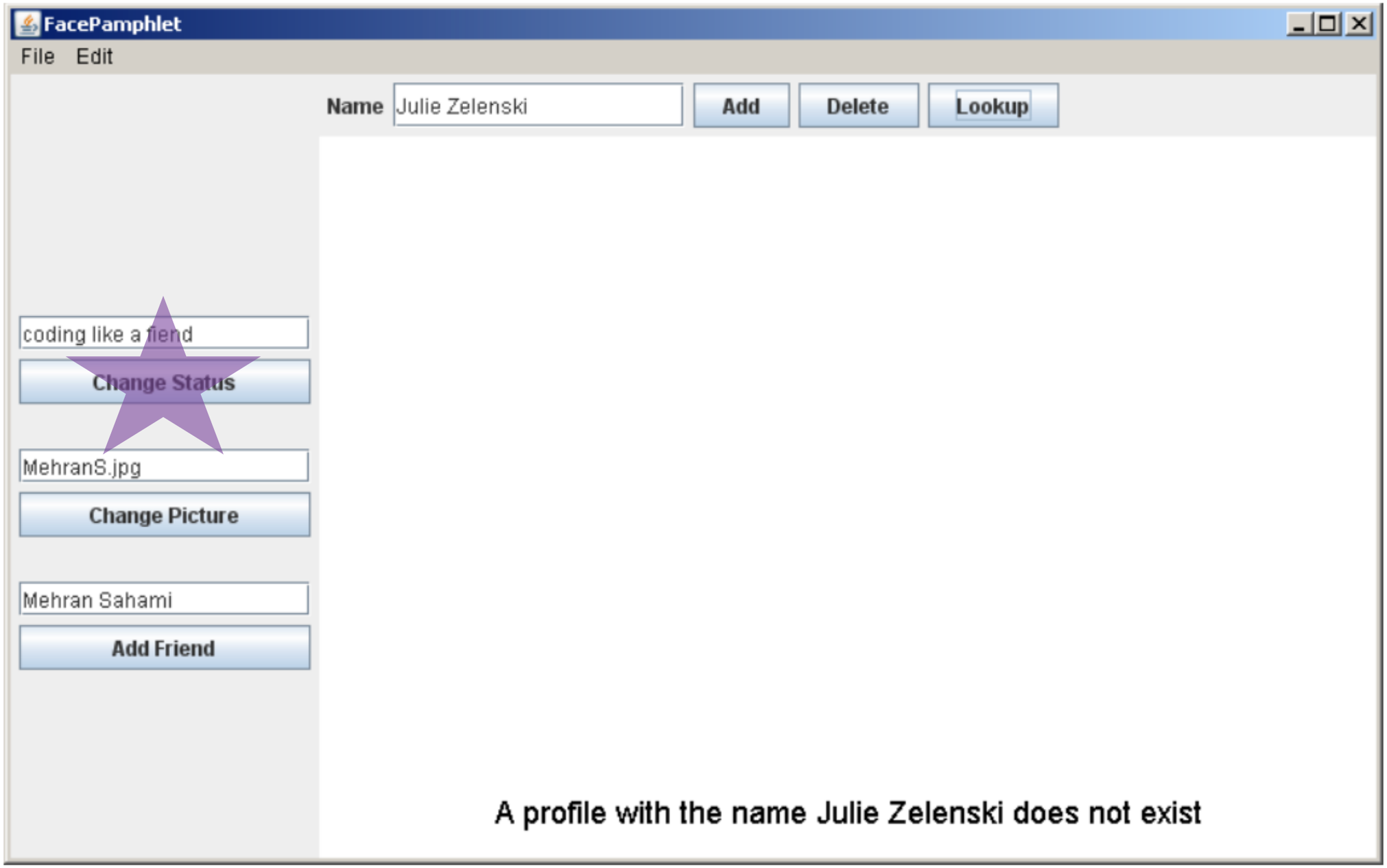
Change Status
MehranS.jpg
Change Picture
Mehran Sahami
Add Friend
A profile with the name Julie Zelenski does not exist


FacePamphlet
File
Edit
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Add
Delete
Lookup
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MehranS.jpg
Change Picture
Mehran Sahami
Add Friend
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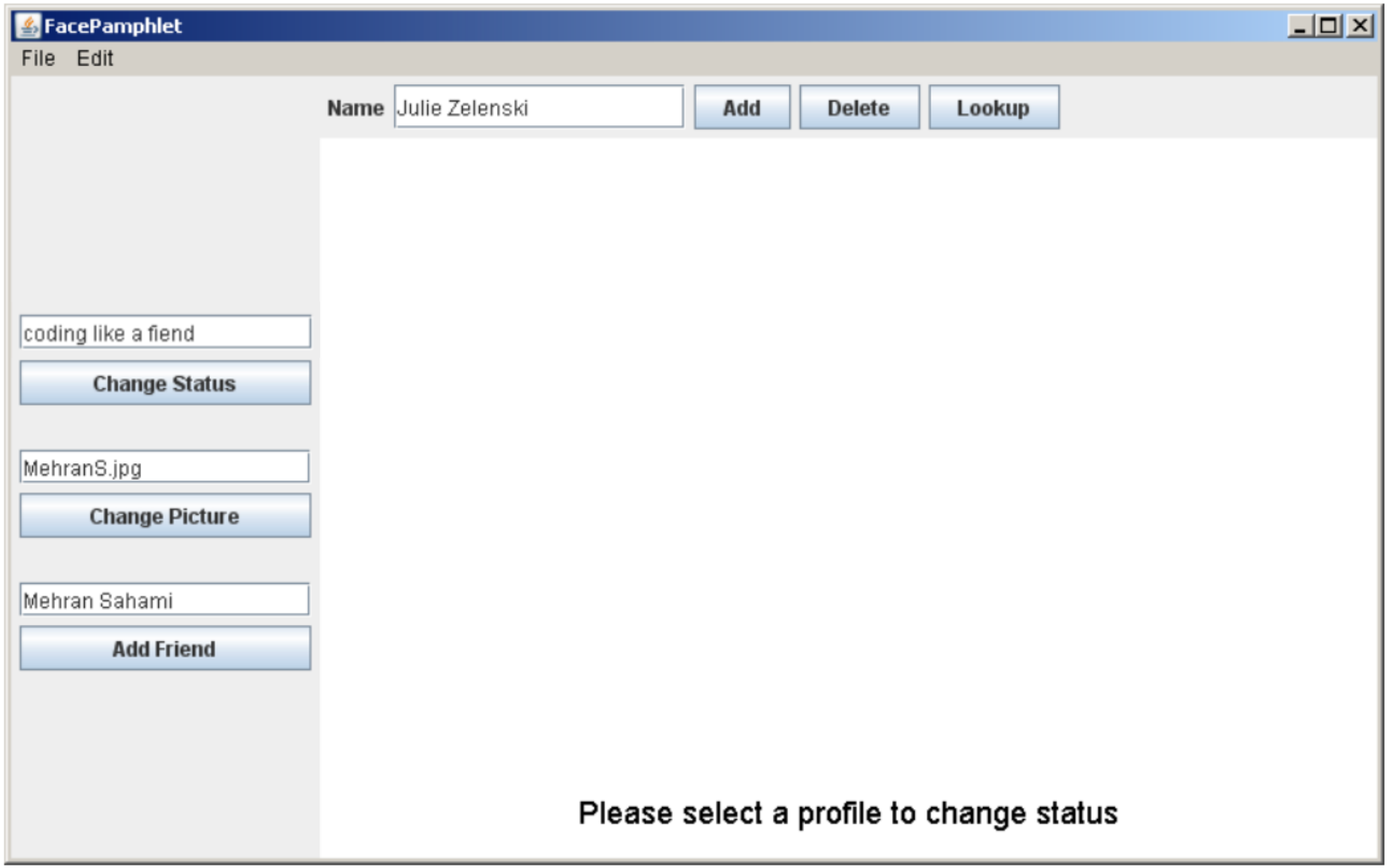
FacePamphlet
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Edit
Name
Julie Zelenski
Add
Delete
Lookup
coding like a fiend
Change Status
MehranS.jpg
Change Picture
Mehran Sahami
Add Friend
Please select a profile to change status

starter classes

- **`FacePamphletConstants.java`** — This interface is provided for you and defines a set of constants that you can use in the rest of the program simply by having your classes implement the FacePamphletConstants interface, as they do in the starter files.

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- **`FacePamphletCanvas.java`** — This class is a subclass of GCanvas that displays profiles as well as Application Messages on the display canvas. This canvas does not need to worry about updating the display as a result of window resizing. You got enough practice with that in NameSurfer, so you don't need to worry about that again here (unless you'd like to add it as a program extension).

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- **`FacePamphletProfile.java`** — This class should encapsulate all the information for a single profile in the social network. Given a FacePamphletProfile object, you can find out that profile's name, associated image (or lack thereof), associated status (or lack thereof), and the list of names of friends for that profile.

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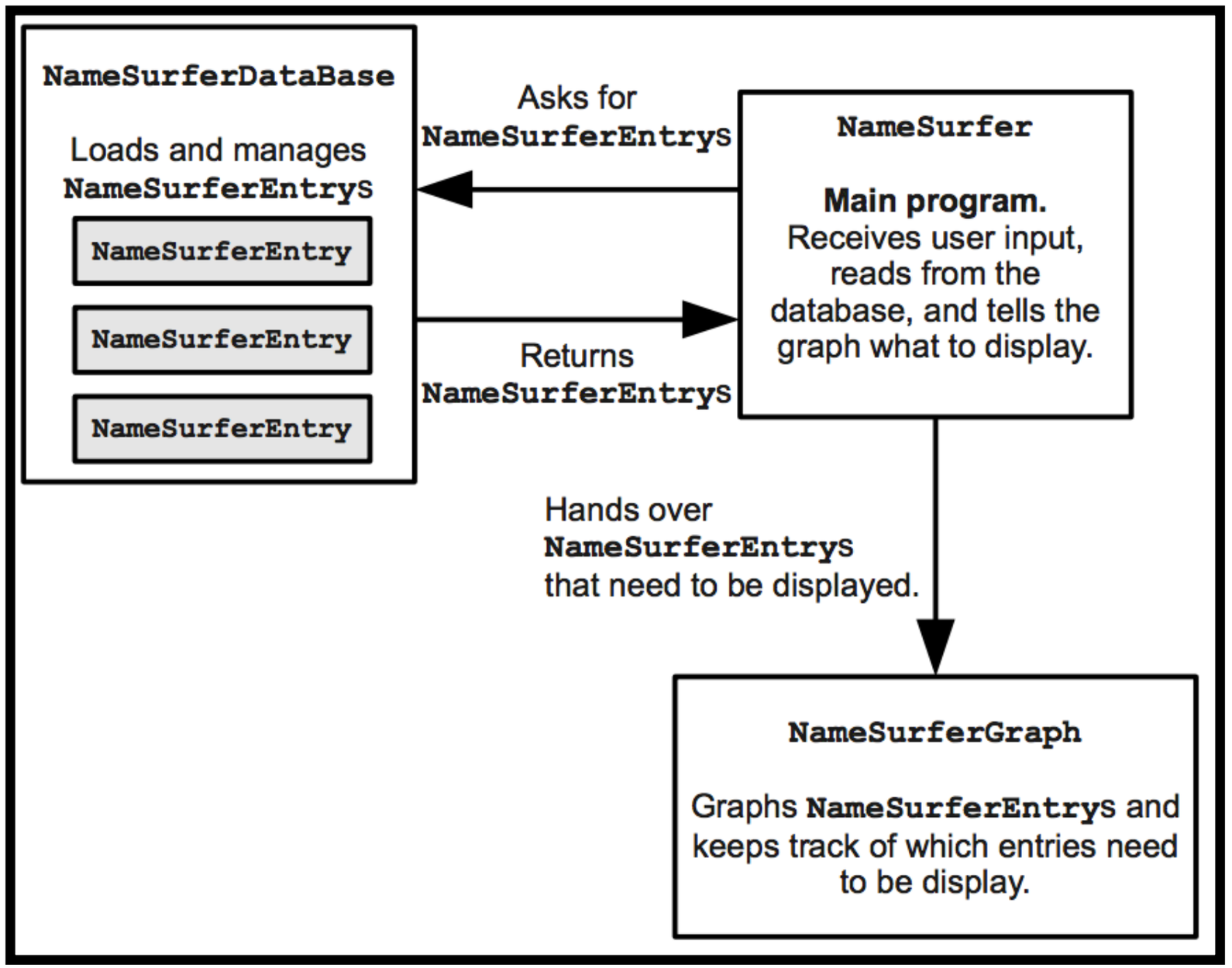
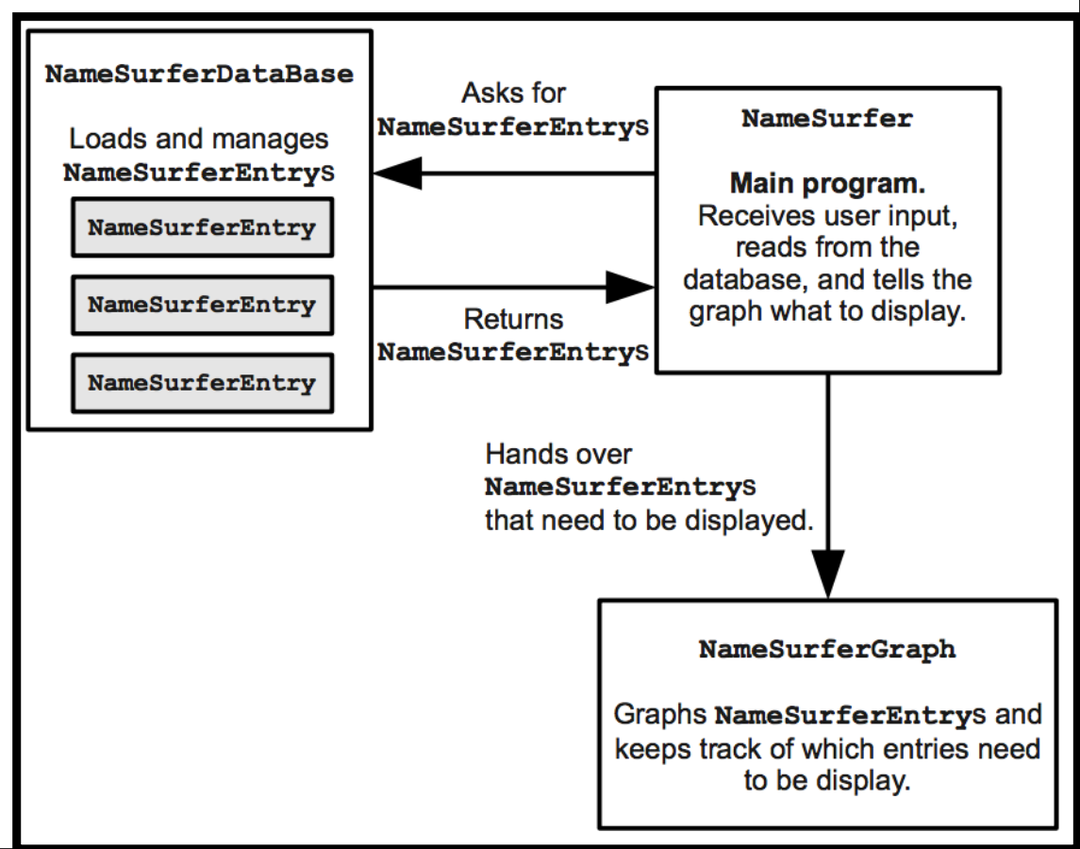
- **`FacePamphletDatabase.java`** — This class keeps track of all the profiles in the FacePamphlet social network. Note that this class is completely separate from the user interface. It is responsible for managing profiles (adding, deleting, looking-up).

FacePamphlet vesus NameSurfer


NameSurferDataBase
Loads and manages
NameSurferEntrys
NameSurferEntry
NameSurferEntry
NameSurferEntry
Asks for
NameSurferEntrys
Returns
NameSurferEntrys
NameSurfer
Main program.
Receives user input, reads from the database, and tells the graph what to display.
Hands over
NameSurferEntrys
that need to be displayed.
NameSurferGraph
Graphs NameSurferEntrys and keeps track of which entries need to be display.


NameSurferDataBase
Loads and manages NameSurferEntrys
NameSurferEntry
NameSurferEntry
NameSurferEntry
Asks for NameSurferEntrys
Returns NameSurferEntrys
NameSurfer
Main program.
Receives user input, reads from the database, and tells the graph what to display.
Hands over NameSurferEntrys that need to be displayed.
NameSurferGraph
Graphs NameSurferEntrys and keeps track of which entries need to be display.

FacePamphletDataBase

Maintains the group of **FacePamphletProfiles**

- **FacePamphletProfile**
- **FacePamphletProfile**
- **FacePamphletProfile**

Asks for, adds, or removes **FacePamphletProfiles**

Returns **FacePamphletProfiles**

FacePamphlet

Receives user input, reads from the database, creates and updates profiles, and tells the canvas what to display.

Hands over a **FacePamphletProfile** that need to be displayed.

FacePamphletConstants

Contains constants used throughout the program.

FacePamphletCanvas

Displays the selected **FacePamphletProfile**

NameSurferDataBase

Loads and manages **NameSurferEntrys**

- **NameSurferEntry**
- **NameSurferEntry**
- **NameSurferEntry**

Asks for **NameSurferEntrys**

Returns **NameSurferEntrys**

NameSurfer

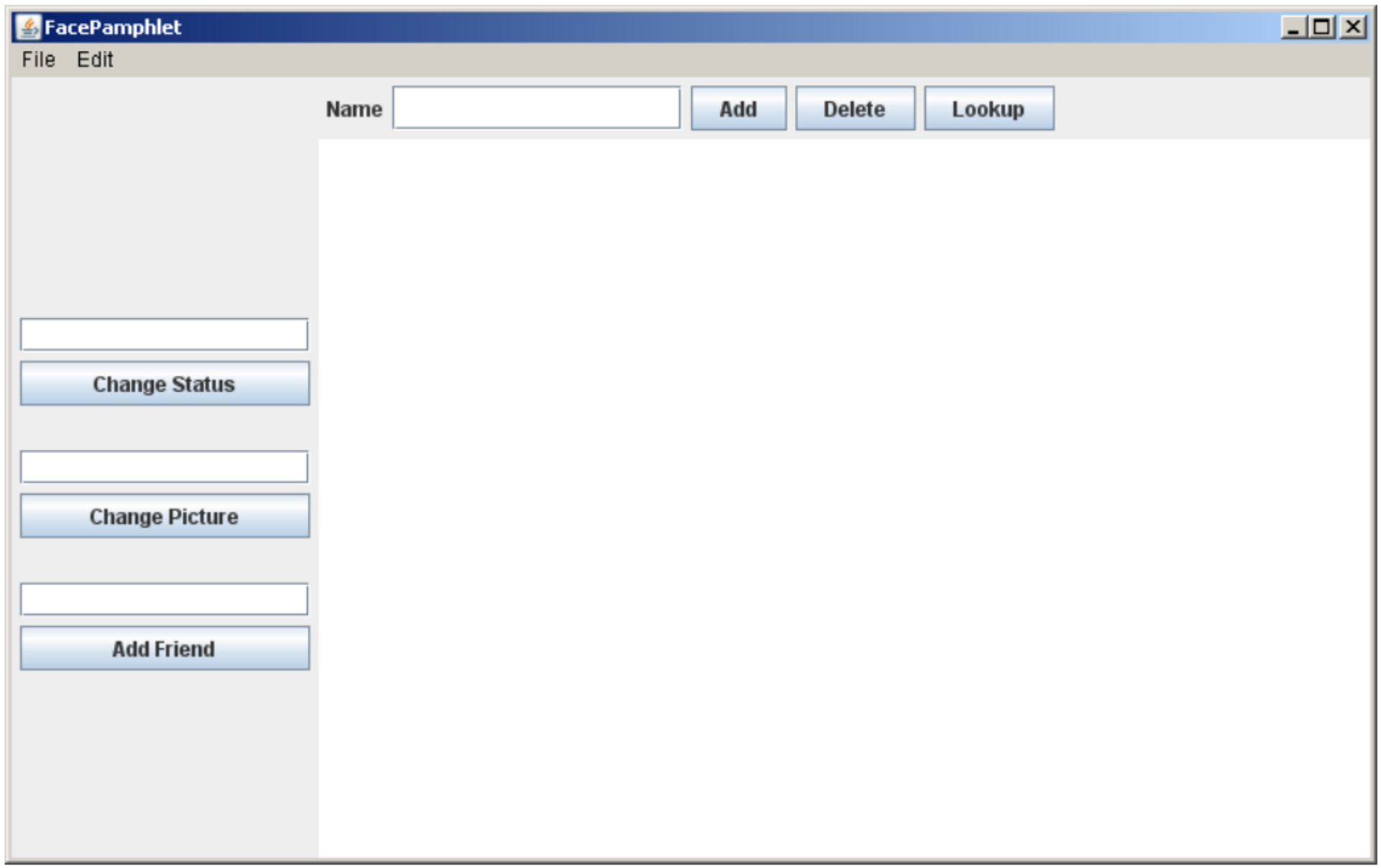
Main program. Receives user input, reads from the database, and tells the graph what to display.

Hands over **NameSurferEntrys** that need to be displayed.

NameSurferGraph

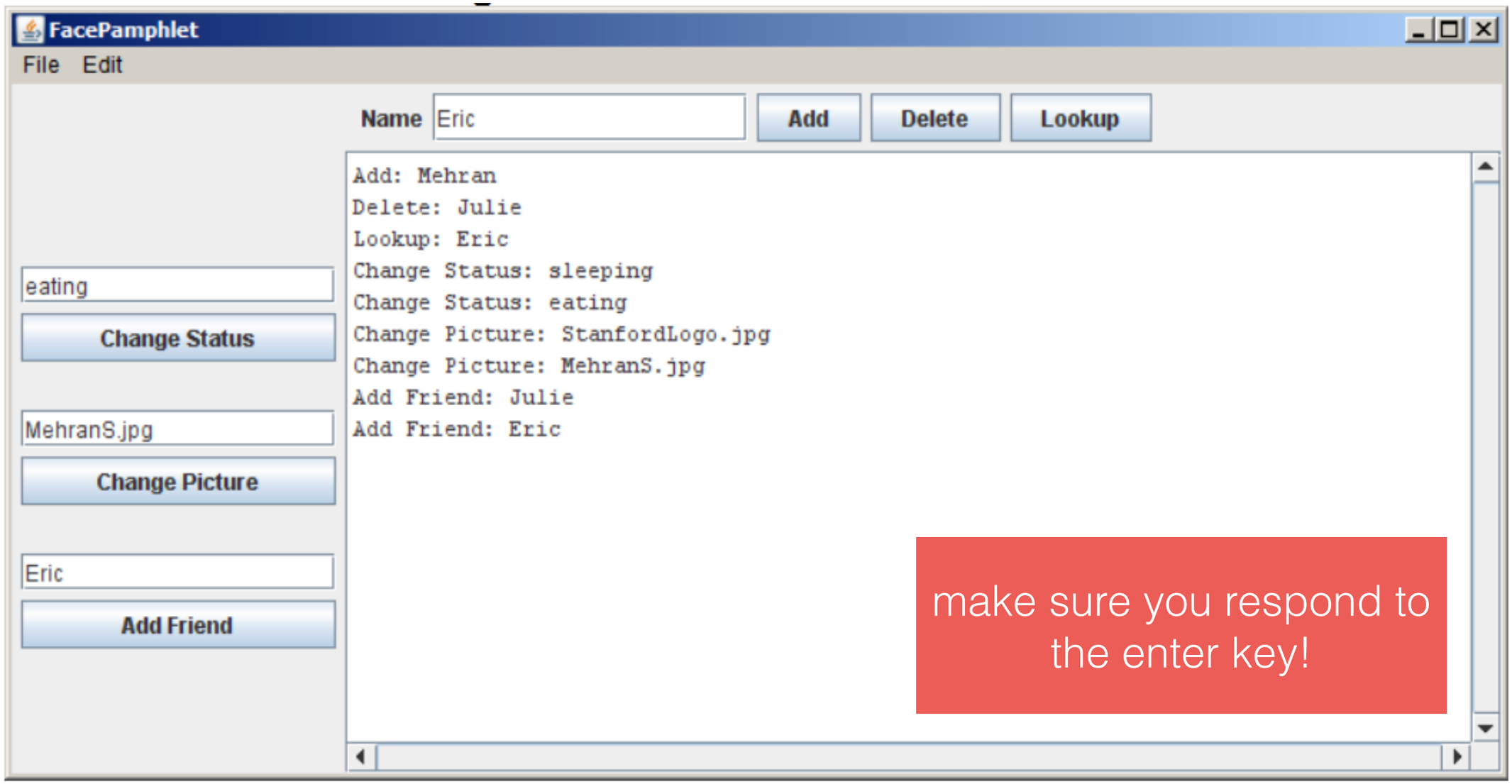
Graphs **NameSurferEntrys** and keeps track of which entries need to be display.

Milestone 1



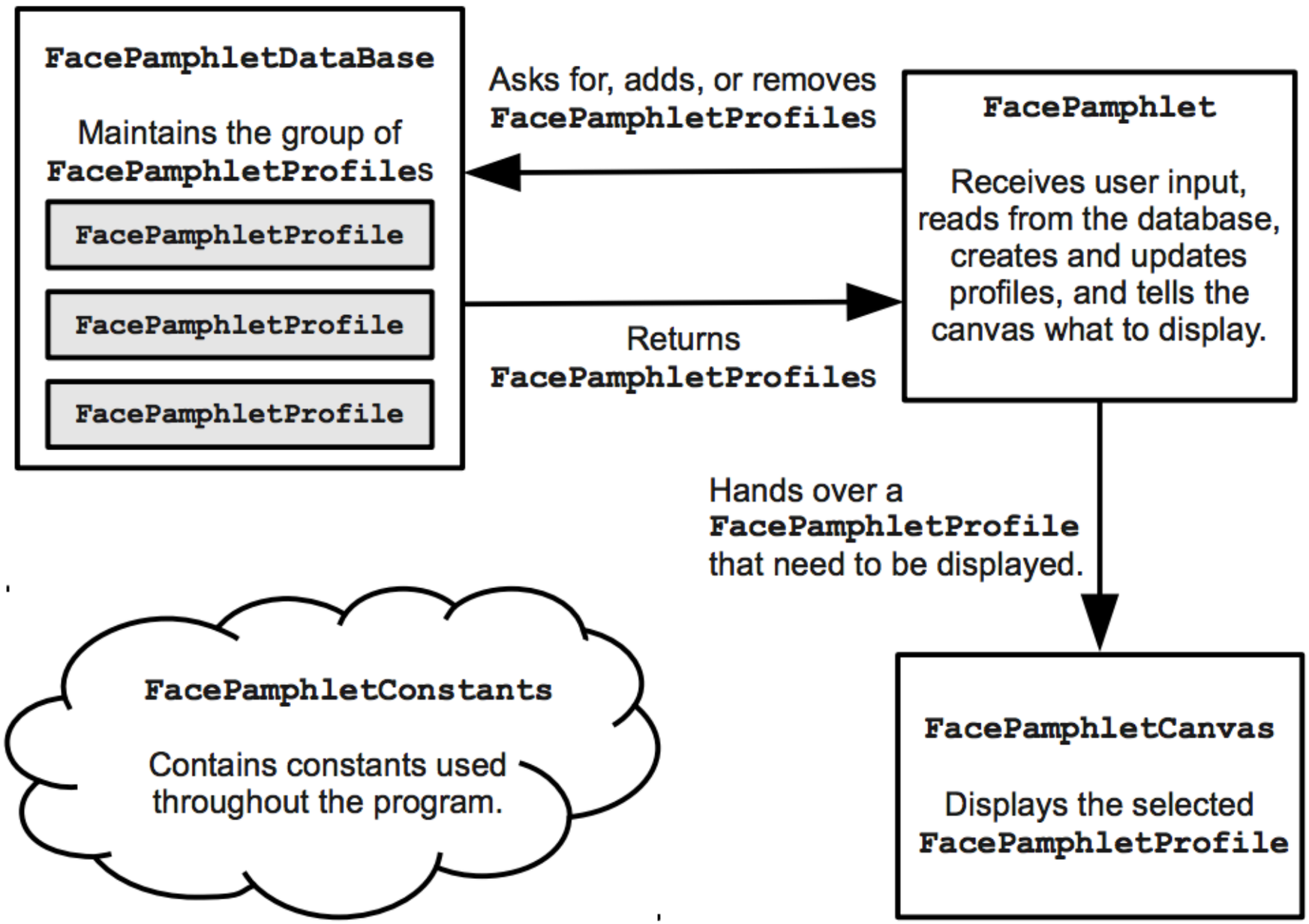
add interactors

Milestone 1.5

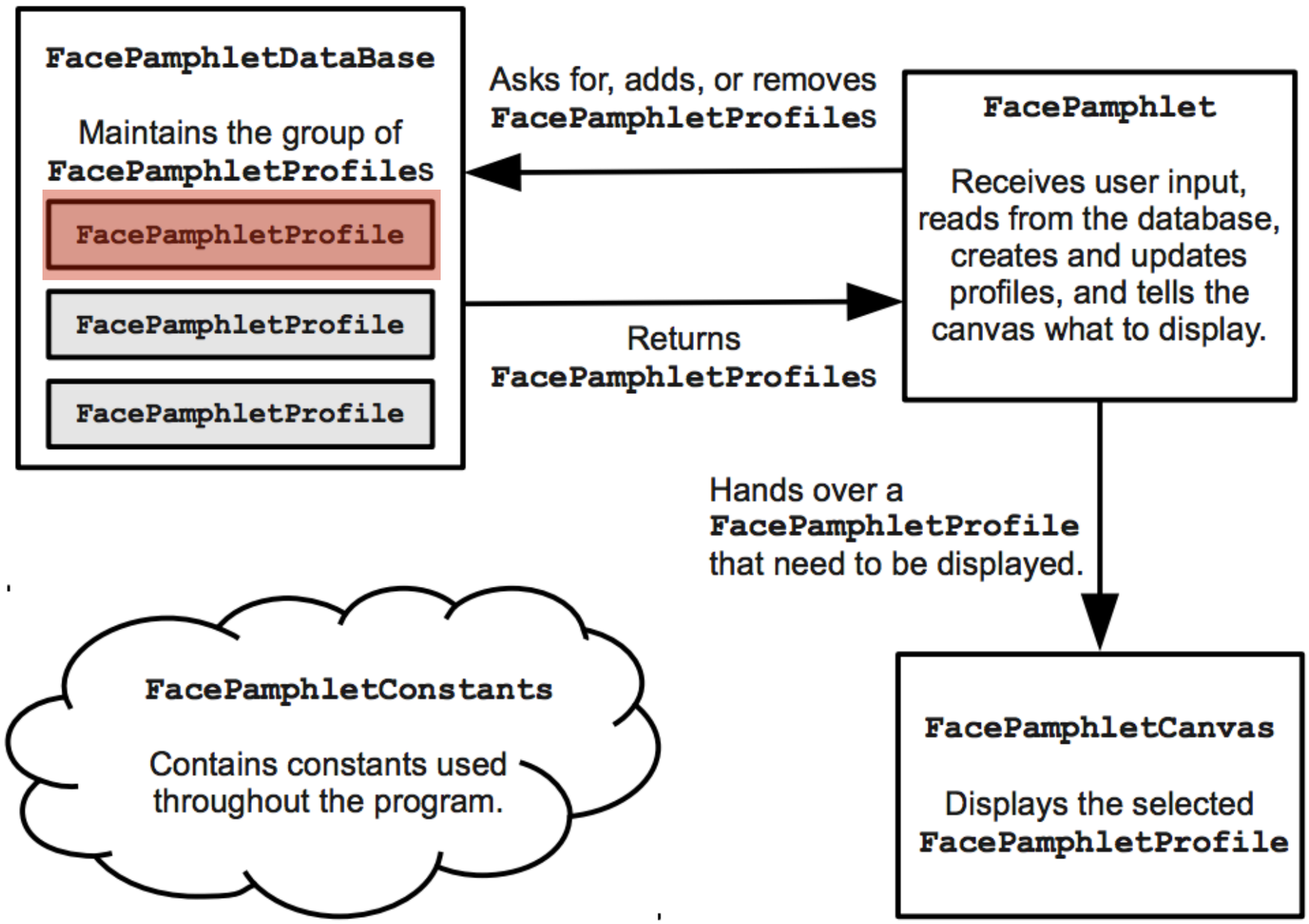


respond to interactors

Milestone 2


FacePamphletDataBase
Maintains the group of FacePamphletProfiles
FacePamphletProfile
FacePamphletProfile
FacePamphletProfile
Asks for, adds, or removes FacePamphletProfiles
Returns FacePamphletProfiles
FacePamphlet
Receives user input, reads from the database, creates and updates profiles, and tells the canvas what to display.
Hands over a FacePamphletProfile that need to be displayed.
FacePamphletConstants
Contains constants used throughout the program.
FacePamphletCanvas
Displays the selected FacePamphletProfile

Milestone 2


FacePamphletDataBase
Maintains the group of FacePamphletProfiles
FacePamphletProfile
FacePamphletProfile
FacePamphletProfile
Asks for, adds, or removes FacePamphletProfiles
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Receives user input, reads from the database, creates and updates profiles, and tells the canvas what to display.
Hands over a FacePamphletProfile that need to be displayed.
FacePamphletConstants
Contains constants used throughout the program.
FacePamphletCanvas
Displays the selected FacePamphletProfile

class: **FacePamphletProfile**

(instance variables)

class: **FacePamphletProfile**

```
public String getName()
```

(instance variables)

class: **FacePamphletProfile**

```
public String getName()
```

String

(instance variables)

class: **FacePamphletProfile**

```
public String getName()

public GImage getImage()
public void setImage(GImage image)
```

String

(instance variables)

class: **FacePamphletProfile**

```
public String getName()

public GImage getImage()
public void setImage(GImage image)
```

String

GImage

(instance variables)

class: **FacePamphletProfile**

```
public String getName()

public GImage getImage()
public void setImage(GImage image)

public String getStatus()
public void setStatus(String status)
```

String

GImage

(instance variables)

class: **FacePamphletProfile**

```
public String getName()

public GImage getImage()
public void setImage(GImage image)

public String getStatus()
public void setStatus(String status)
```

String

GImage

String

(instance variables)

class: **FacePamphletProfile**

```
public String getName()

public GImage getImage()
public void setImage(GImage image)

public String getStatus()
public void setStatus(String status)

public boolean addFriend(String friend)
public boolean removeFriend(String friend)
public Iterator<String> getFriends()
```

String

GImage

String

(instance variables)

class: **FacePamphletProfile**

```
public String getName()

public GImage getImage()
public void setImage(GImage image)

public String getStatus()
public void setStatus(String status)

public boolean addFriend(String friend)
public boolean removeFriend(String friend)
public Iterator<String> getFriends()
```

String

GImage

String

??

(instance variables)

class: **FacePamphletProfile**

```
public String getName()

public GImage getImage()
public void setImage(GImage image)

public String getStatus()
public void setStatus(String status)

public boolean addFriend(String friend)
public boolean removeFriend(String friend)
public Iterator<String> getFriends()
```

String

GImage

String

??

(instance variables)

Using `Iterator<String>`

Using `Iterator<String>`

```
Iterator<String> it = profile.getFriends();
```

Using `Iterator<String>`

```
Iterator<String> it = profile.getFriends();
```

Using Iterator<String>

```
Iterator<String> it = profile.getFriends();

while (it.hasNext()) {
```

Using Iterator<String>

```
Iterator<String> it = profile.getFriends();

while (it.hasNext()) {
   String friend = it.next();
```

Using `Iterator<String>`

```
Iterator<String> it = profile.getFriends();

while (it.hasNext()) {
   String friend = it.next();
   // do something with that friend's name
```

Using Iterator<String>

```
Iterator<String> it = profile.getFriends();

while (it.hasNext()) {
   String friend = it.next();
   // do something with that friend's name
}
```

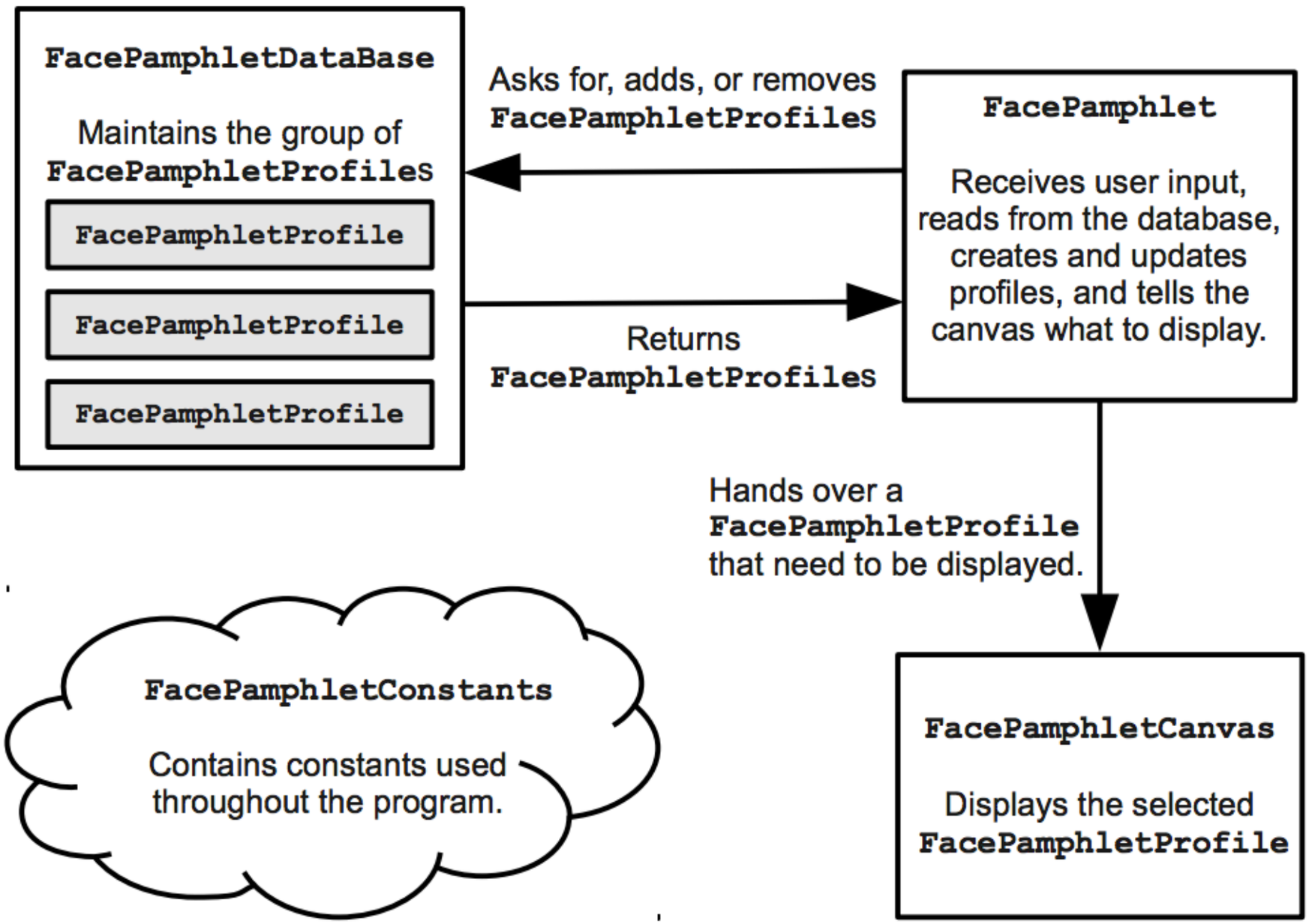
Using Iterator<String>

```
Iterator<String> it = profile.getFriends();

while (it.hasNext()) {
   String friend = it.next();
   // do something with that friend's name
}
```

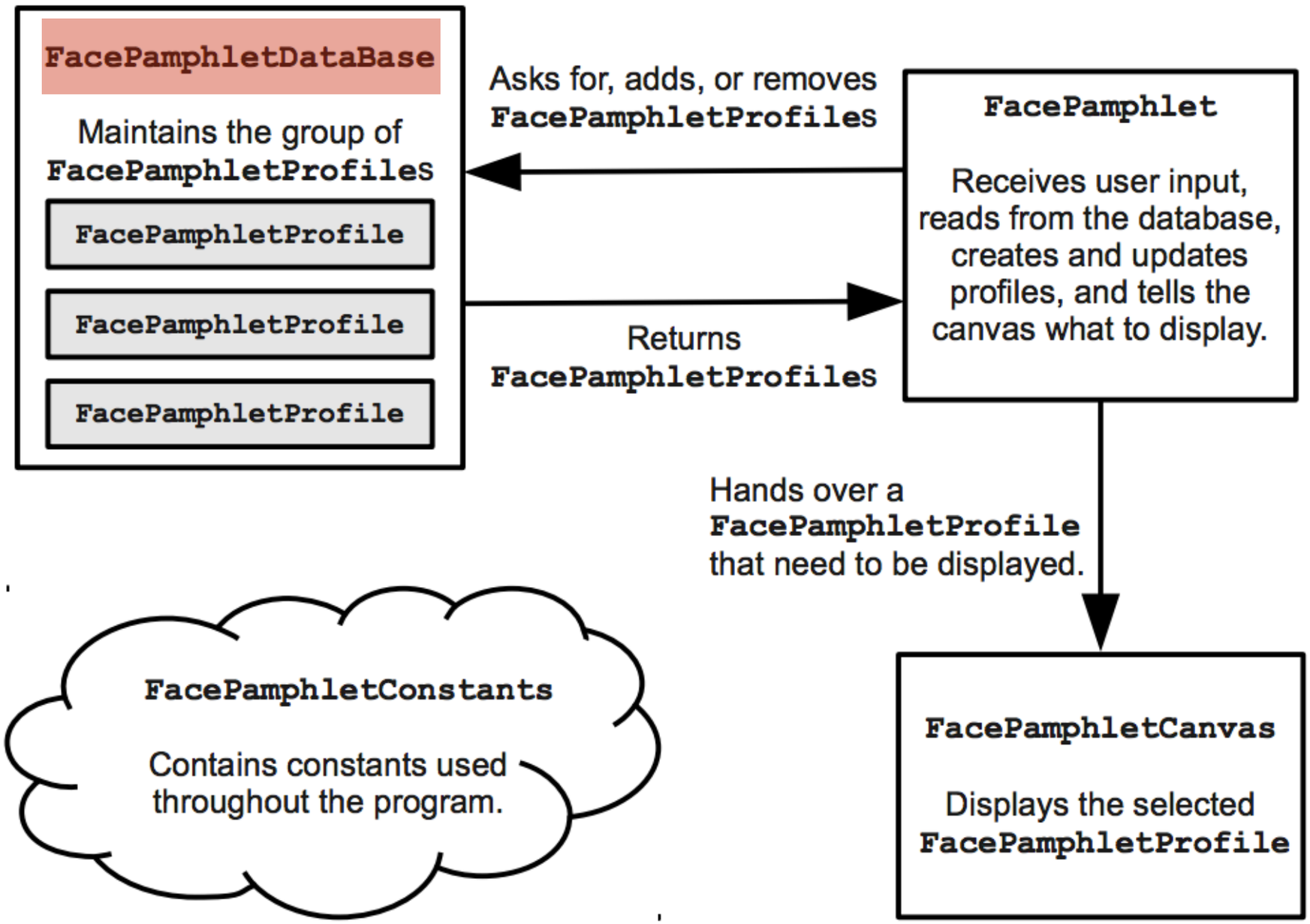
Using Iterator<String>

```
Iterator<String> it = profile.getFriends();

while (it.hasNext()) {
   String friend = it.next();
   // do something with that friend's name
}
```

Milestone 3


FacePamphletDataBase
Maintains the group of FacePamphletProfiles
FacePamphletProfile
FacePamphletProfile
FacePamphletProfile
Asks for, adds, or removes FacePamphletProfiles
Returns FacePamphletProfiles
FacePamphlet
Receives user input, reads from the database, creates and updates profiles, and tells the canvas what to display.
Hands over a FacePamphletProfile that need to be displayed.
FacePamphletConstants
Contains constants used throughout the program.
FacePamphletCanvas
Displays the selected FacePamphletProfile

Milestone 3


FacePamphletDataBase
Maintains the group of FacePamphletProfiles
FacePamphletProfile
FacePamphletProfile
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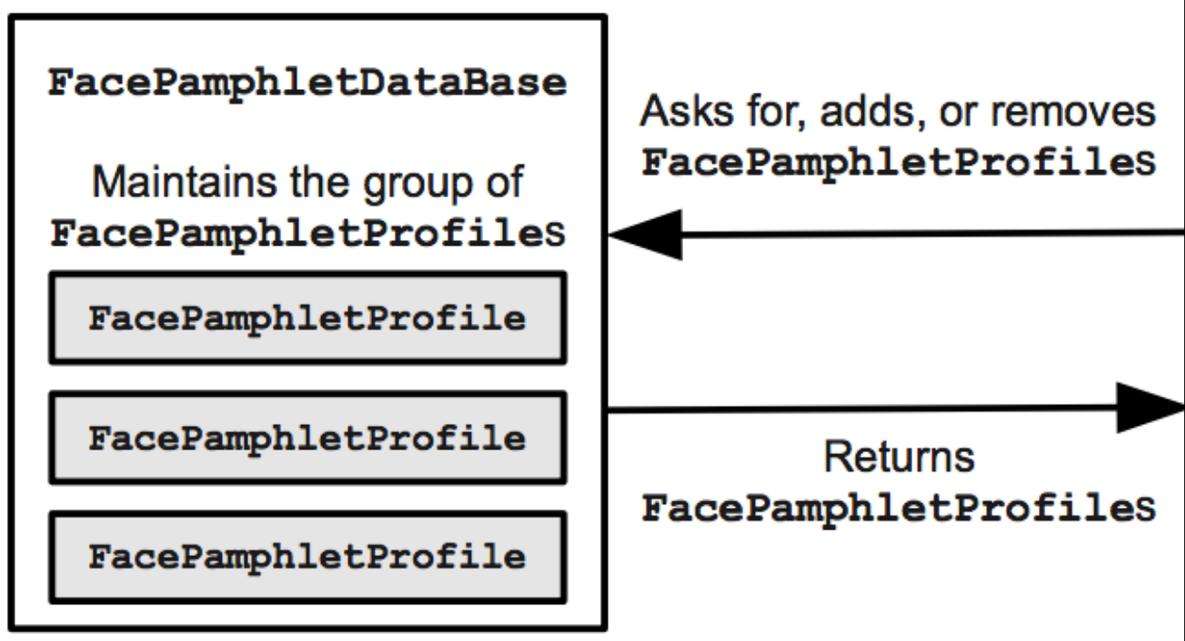
FacePamphletConstants
Contains constants used throughout the program.
FacePamphletCanvas
Displays the selected FacePamphletProfile

class: **FacePamphletDatabase**

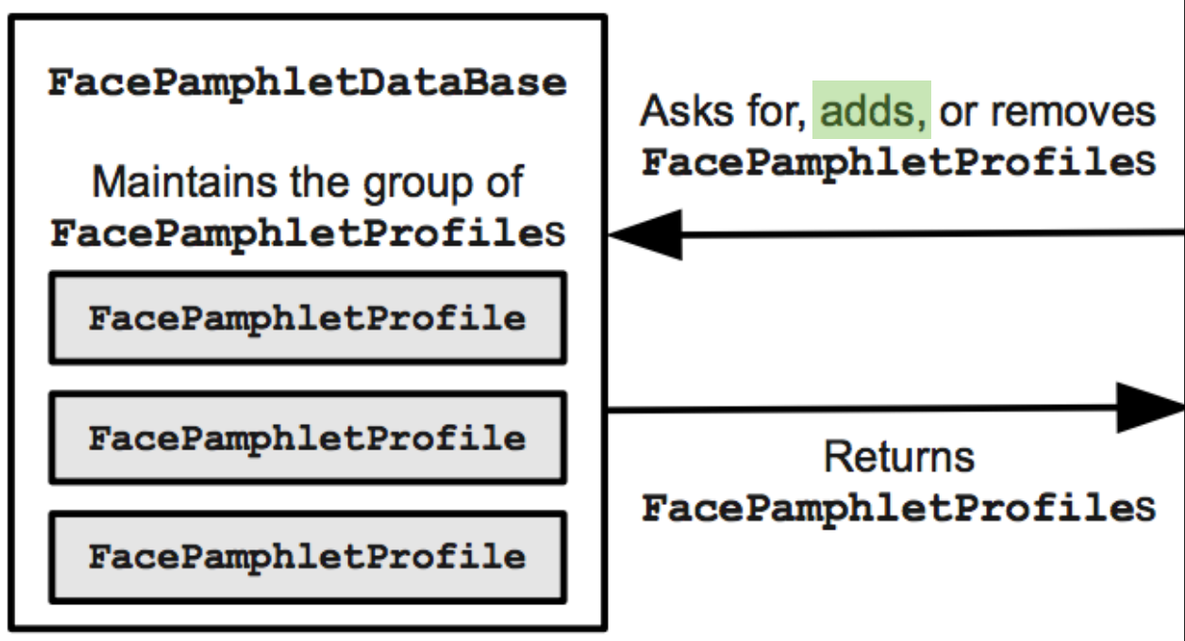
(instance variables)



class: **FacePamphletDatabase**

```
public void addProfile(FacePamphletProfile profile)
```

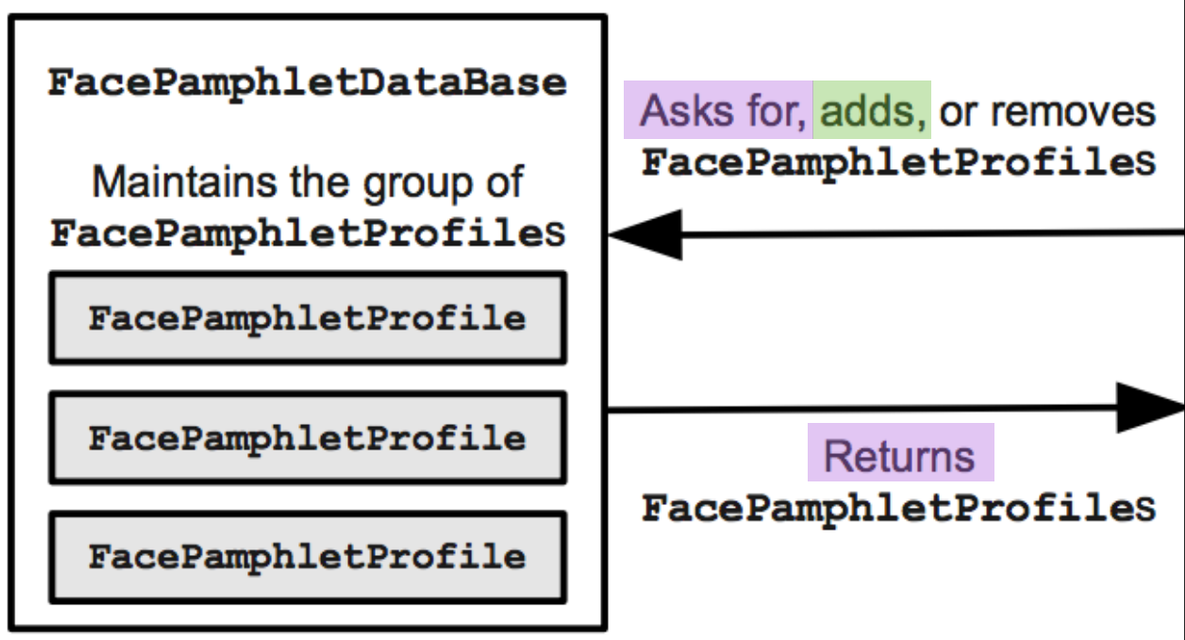
(instance variables)



class: **FacePamphletDatabase**

```
public void addProfile(FacePamphletProfile profile)

public FacePamphletProfile getProfile(String name)
```

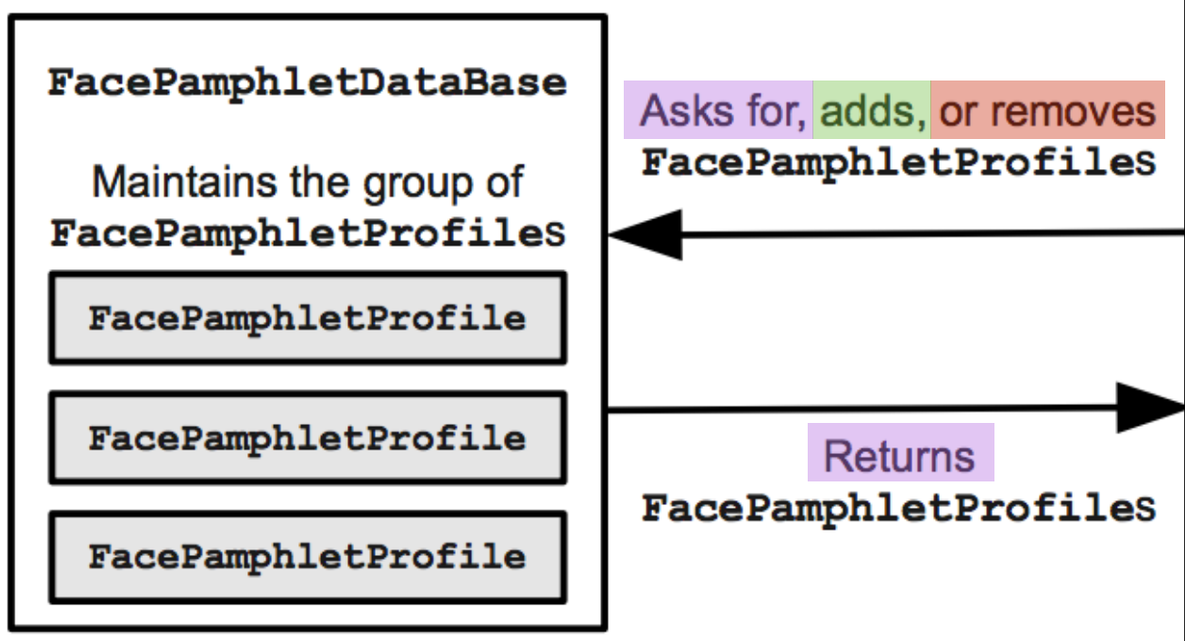
(instance variables)



class: **FacePamphletDatabase**

```
public void addProfile(FacePamphletProfile profile)

public FacePamphletProfile getProfile(String name)

public void deleteProfile(String name)
```

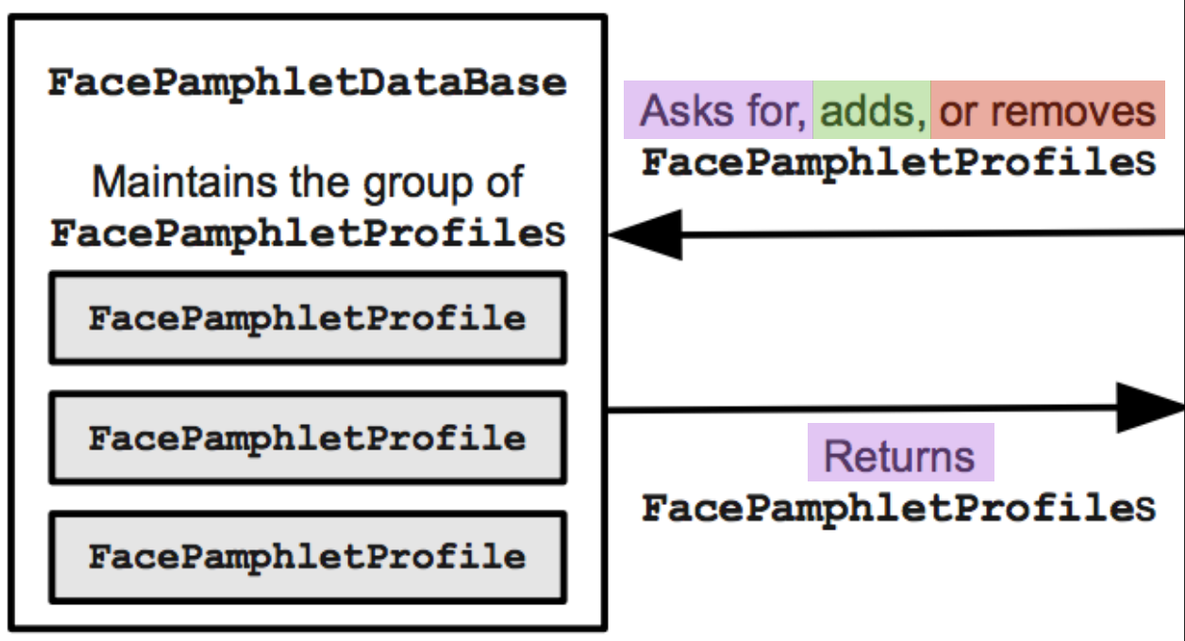
(instance variables)



class: **FacePamphletDatabase**

```
public void addProfile(FacePamphletProfile profile)

public FacePamphletProfile getProfile(String name)

public void deleteProfile(String name)

public boolean containsProfile(String name)
```

(instance variables)

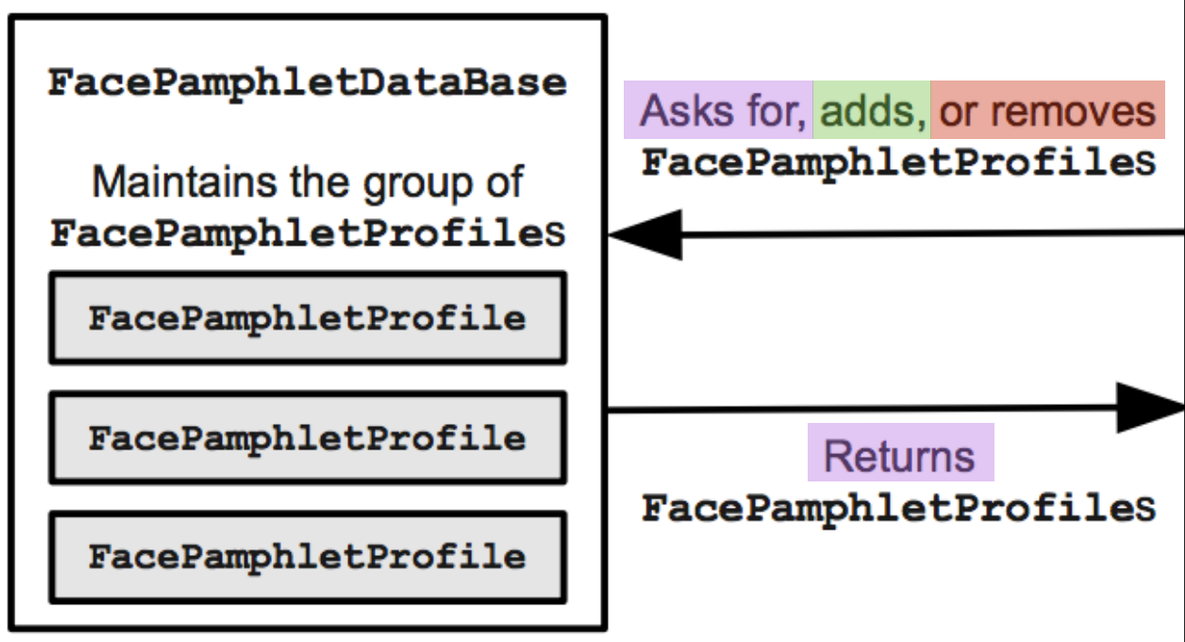


class: **FacePamphletDatabase**

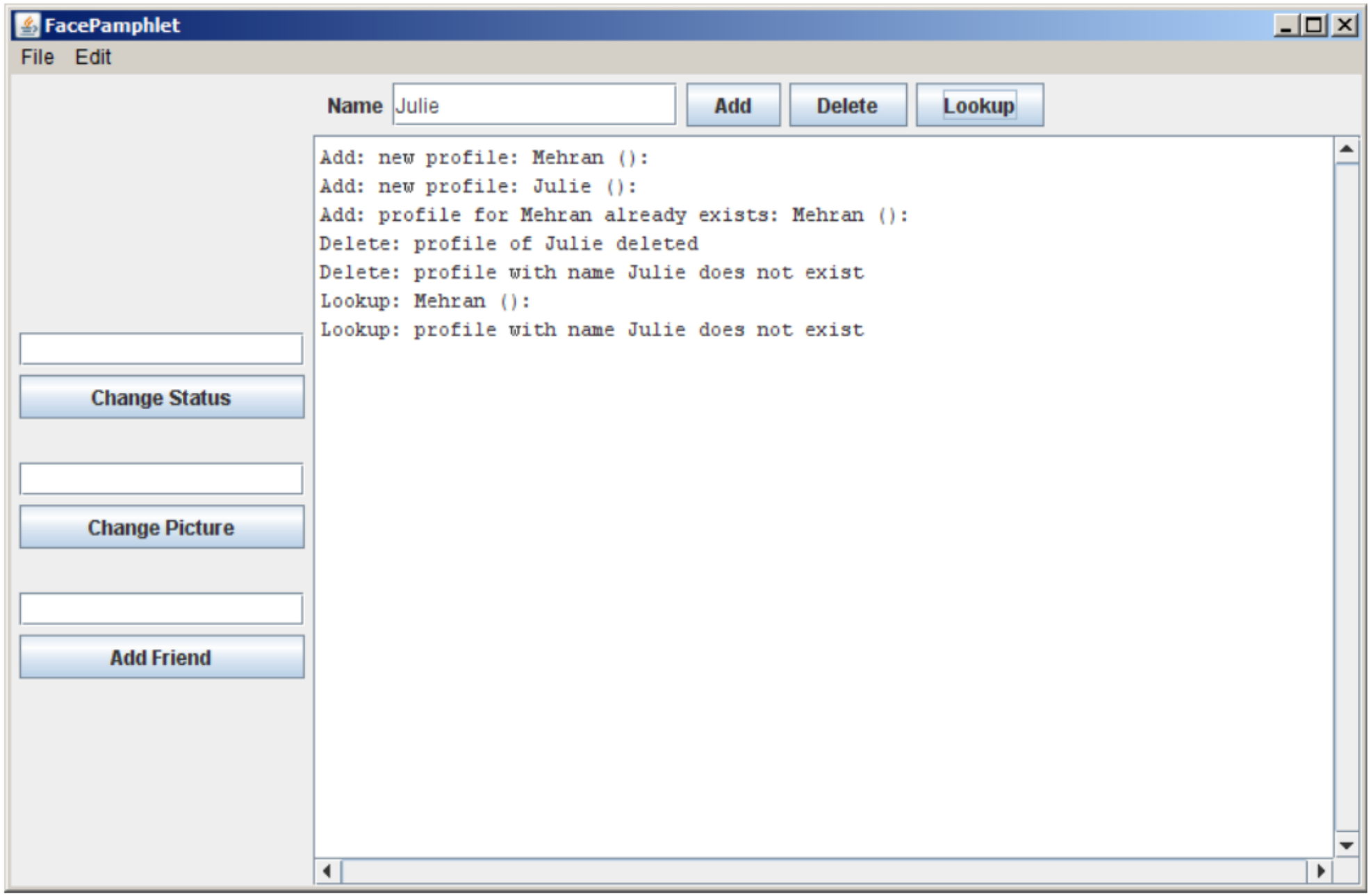
```
public void addProfile(FacePamphletProfile profile)

public FacePamphletProfile getProfile(String name)

public void deleteProfile(String name)

public boolean containsProfile(String name)
```

??

(instance variables)

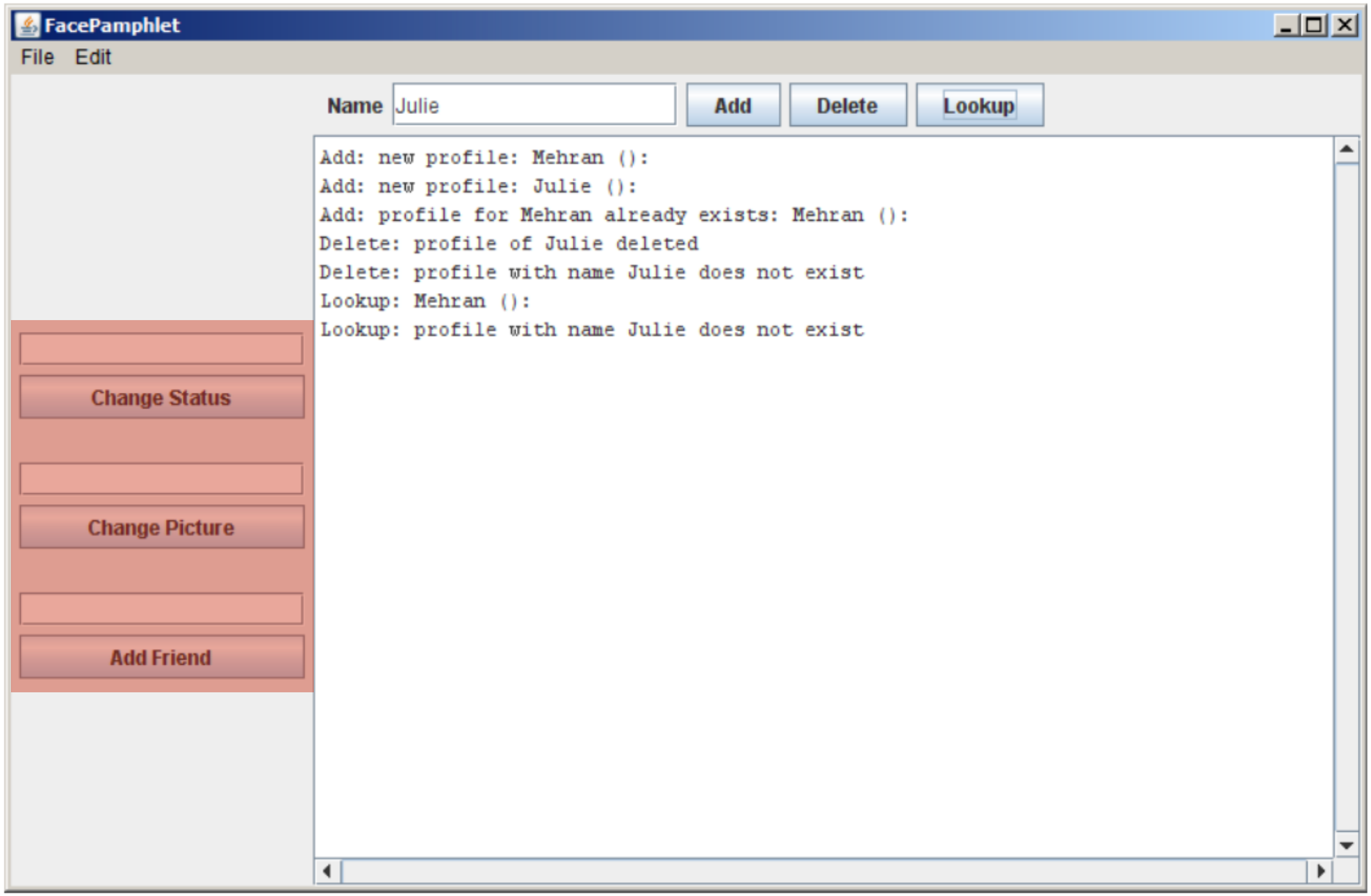


Milestone 4



link interactors to other classes

Milestone 4



link interactors to other classes

Change Status

Change Status

- Get the status from the **`JTextBox`**

Change Status

- Get the status from the **`JTextBox`**
- Use **`.setStatus`** on the current profile to set it to the new text

Change Picture

```
GImage image = null;

try {
   image = new GImage(filename);
} catch (ErrorException ex) {
   // Code that is executed if the filename
   // cannot be opened.
}
```

Change Picture

```
GImage image = null;

try {
   image = new GImage(filename);
} catch (ErrorException ex) {
   // Code that is executed if the filename
   // cannot be opened.
}
```

- Use **`.setPicture`** on the current profile to set it to the new picture

Add Friend

Add Friend

- Get the friend name from the **`JTextBox`**

Add Friend

- Get the friend name from the **`JTextBox`**

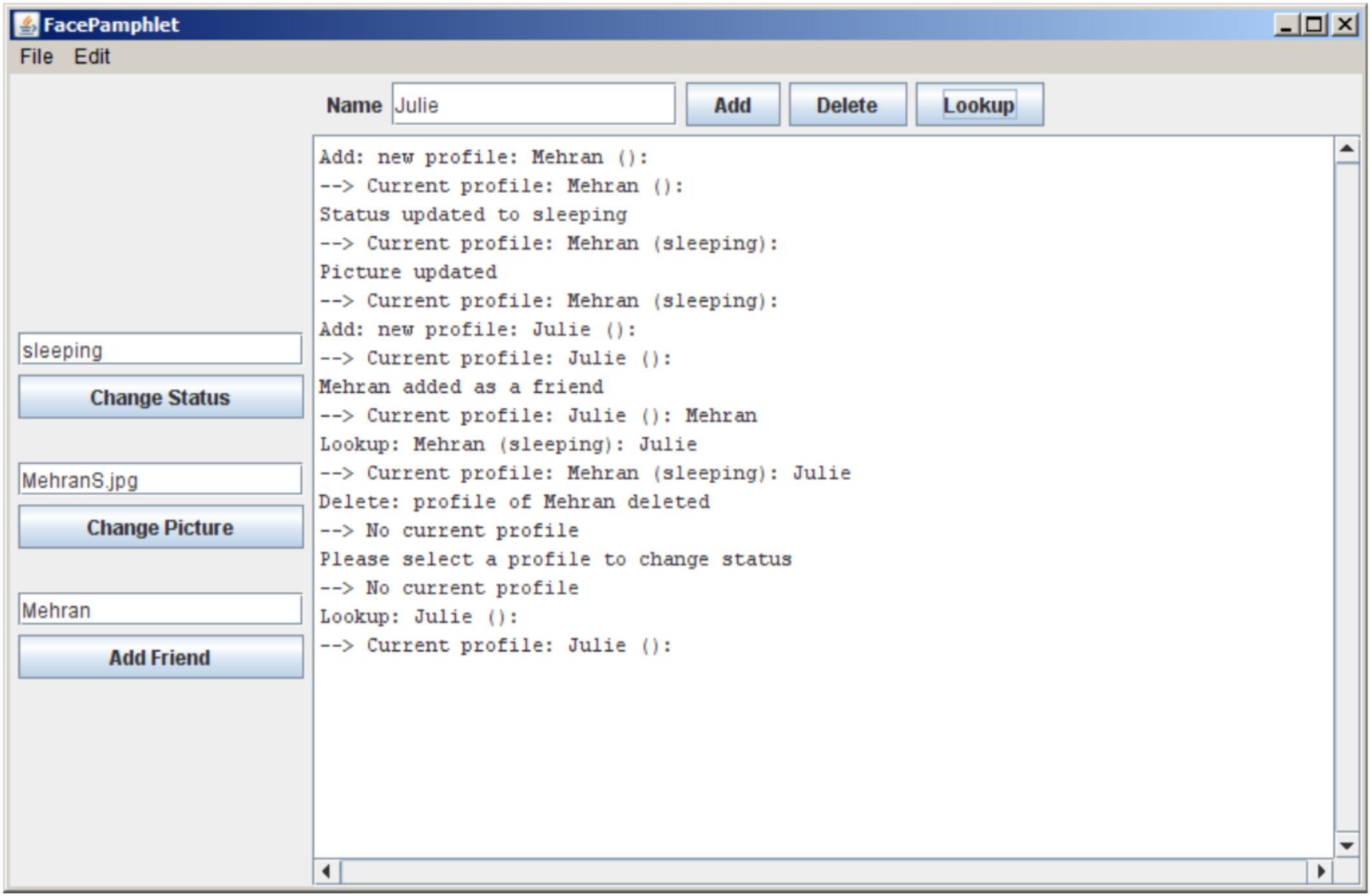
- Make sure that it’s a valid user!

Add Friend

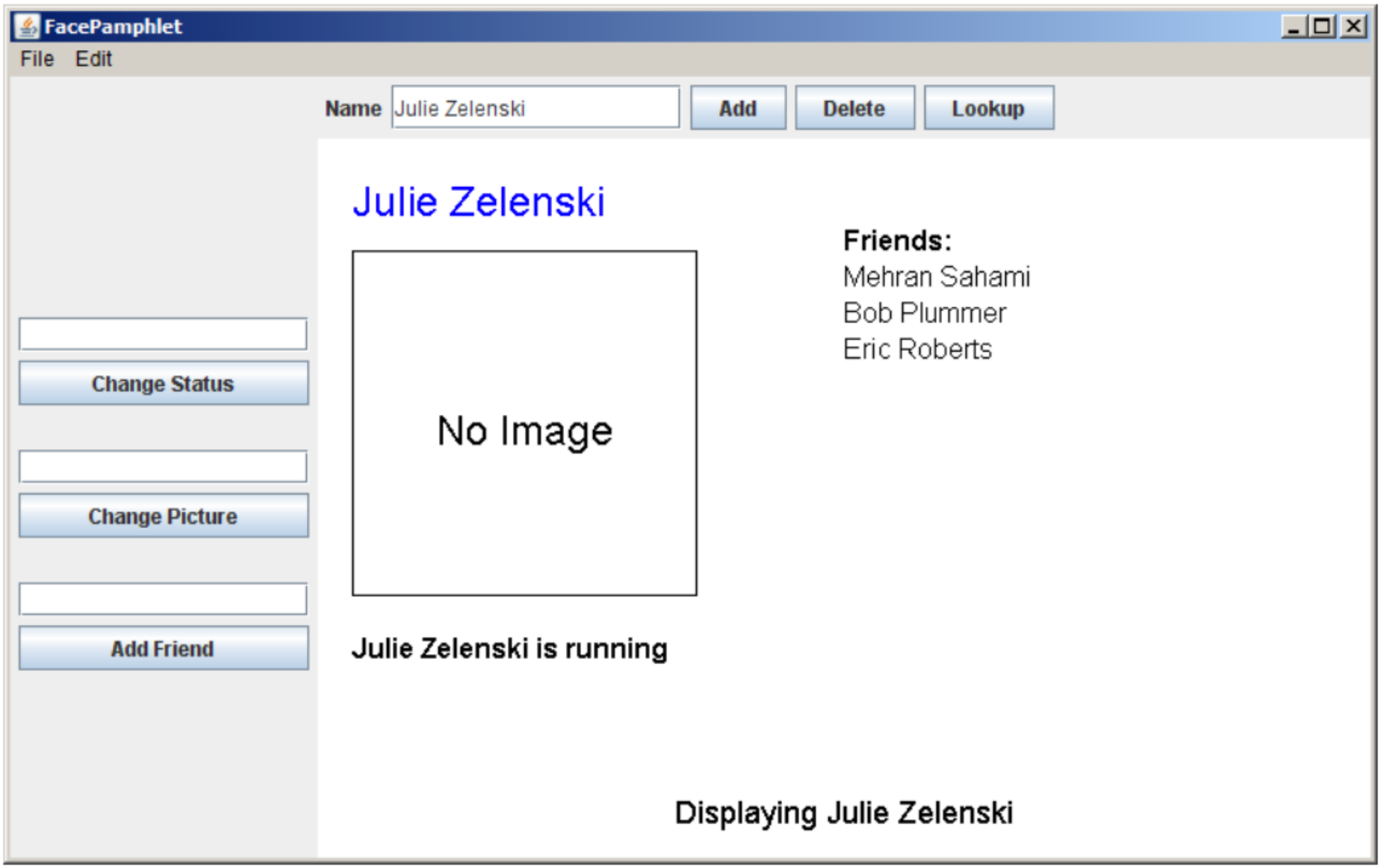
- Get the friend name from the **`JTextBox`**

- Make sure that it's a valid user!

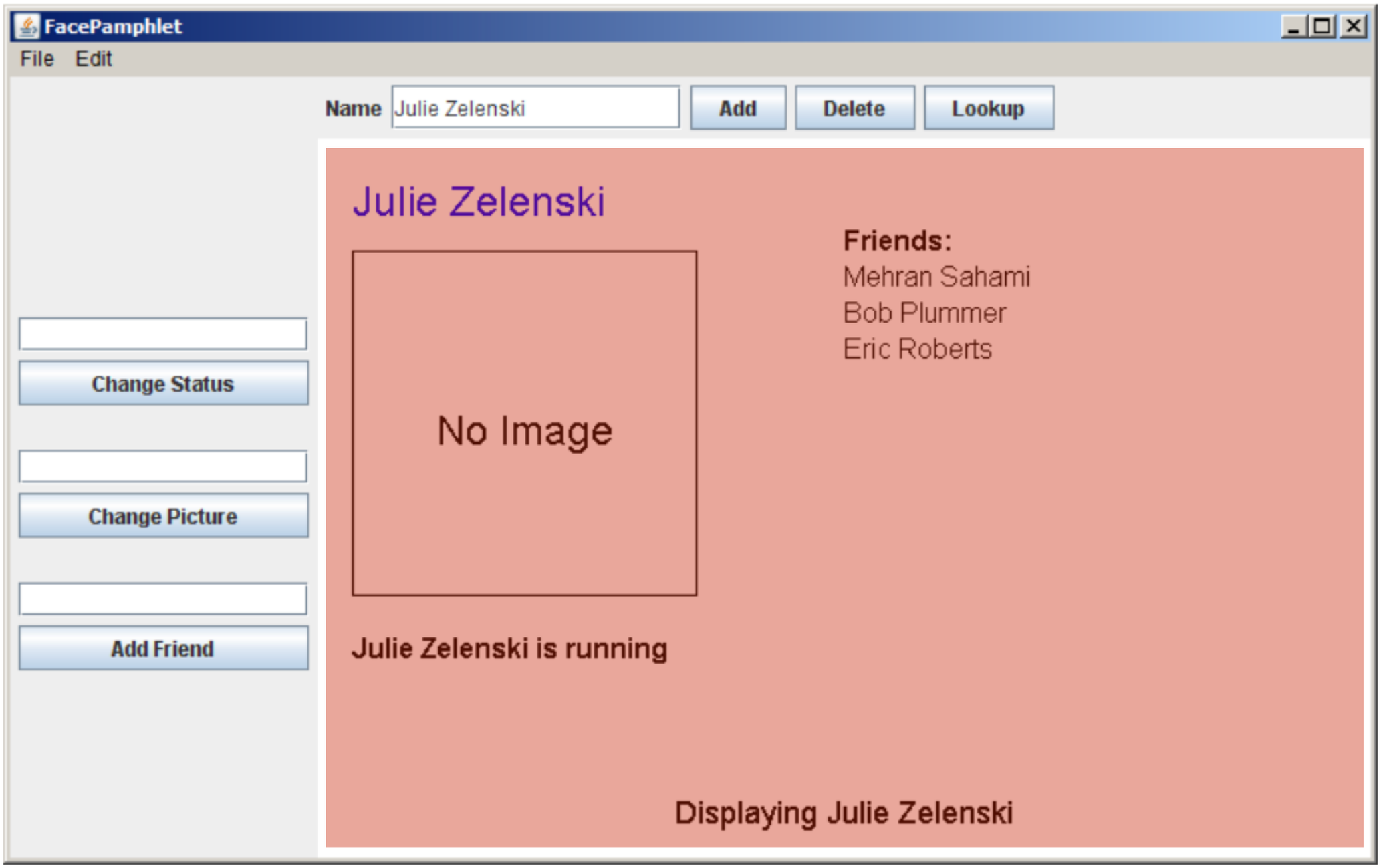
- Use **`.setStatus`** on the current profile to set it to the new text


FacePamphlet
File
Edit
Name
Julie
Add
Delete
Lookup
Add: new profile: Mehran ():
--> Current profile: Mehran ():
Status updated to sleeping
--> Current profile: Mehran (sleeping):
Picture updated
--> Current profile: Mehran (sleeping):
Add: new profile: Julie ():
--> Current profile: Julie ():
Mehran added as a friend
--> Current profile: Julie (): Mehran
Lookup: Mehran (sleeping): Julie
--> Current profile: Mehran (sleeping): Julie
Delete: profile of Mehran deleted
--> No current profile
Please select a profile to change status
--> No current profile
Lookup: Julie ():
--> Current profile: Julie ():
sleeping
Change Status
MehranS.jpg
Change Picture
Mehran
Add Friend

Milestone 5


FacePamphlet
File
Edit
Name
Julie Zelenski
Add
Delete
Lookup
Julie Zelenski
No Image
Friends:
Mehran Sahami
Bob Plummer
Eric Roberts
Change Status
Change Picture
Add Friend
Julie Zelenski is running
Displaying Julie Zelenski

Milestone 5


FacePamphlet
File
Edit
Name
Julie Zelenski
Add
Delete
Lookup
Julie Zelenski
Friends:
Mehran Sahami
Bob Plummer
Eric Roberts
No Image
Change Status
Change Picture
Add Friend
Julie Zelenski is running
Displaying Julie Zelenski

class: **FacePamphletConstants**

```
/** The width of the application window */
public static final int APPLICATION_WIDTH = 800;

/** The height of the application window */
public static final int APPLICATION_HEIGHT = 500;

/** Number of characters for each of the text input fields */
public static final int TEXT_FIELD_SIZE = 15;

/** Text to be used to create an "empty" label to put space
 *  between interactors on EAST border of application.  Note
this label is not actually the empty string, but rather a single
space */
public static final String EMPTY_LABEL_TEXT = " ";

/** Name of font used to display the application message at the
 *  bottom of the display canvas */
public static final String MESSAGE_FONT = "Dialog-18";

/** Name of font used to display the name in a user's profile */
public static final String PROFILE_NAME_FONT = "Dialog-24";

/** Name of font used to display the text "No Image" in user
 *  profiles that do not contain an actual image */
public static final String PROFILE_IMAGE_FONT = "Dialog-24";

/** Name of font used to display the status in a user's profile
*/
public static final String PROFILE_STATUS_FONT = "Dialog-16-
bold";

/** Name of font used to display the label "Friends" above the
 *  user's list of friends in a profile */
public static final String PROFILE_FRIEND_LABEL_FONT =
"Dialog-16-bold";

/** Name of font used to display the names from the user's list
 *  of friends in a profile */
public static final String PROFILE_FRIEND_FONT = "Dialog-16";

/** The width (in pixels) that profile images should be
displayed */
public static final double IMAGE_WIDTH = 200;

/** The height (in pixels) that profile images should be
displayed */
public static final double IMAGE_HEIGHT = 200;

/** The number of pixels in the vertical margin between the
bottom
 *  of the canvas display area and the baseline for the message
 *  text that appears near the bottom of the display */
public static final double BOTTOM_MESSAGE_MARGIN = 20;

/** The number of pixels in the horizontal margin between the
 *  left side of the canvas display area and the Name, Image,
and
 *  Status components that are display in the profile */
public static final double LEFT_MARGIN = 20;

/** The number of pixels in the vertical margin between the top
 *  of the canvas display area and the top (NOT the baseline) of
 *  the Name component that is displayed in the profile */
public static final double TOP_MARGIN = 20;

/** The number of pixels in the vertical margin between the
 *  baseline of the Name component and the top of the Image
 *  displayed in the profile */
public static final double IMAGE_MARGIN = 20;

/** The number of vertical pixels in the vertical margin between
 *  the bottom of the Image and the top of the Status component
 *  in the profile */
public static final double STATUS_MARGIN = 20;
```

make sure to use all of these in your code

class: **FacePamphletCanvas**

(instance variables)

class: **FacePamphletCanvas**

```
public void showMessage(String msg)
```

(instance variables)

class: **FacePamphletCanvas**

```
public void showMessage(String msg)

public void displayProfile(FacePamphletProfile profile)
```

(instance variables)

class: **FacePamphletCanvas**

```
public void showMessage(String msg)

public void displayProfile(FacePamphletProfile profile)
```

`currentProfile`

(instance variables)

class: **FacePamphletCanvas**

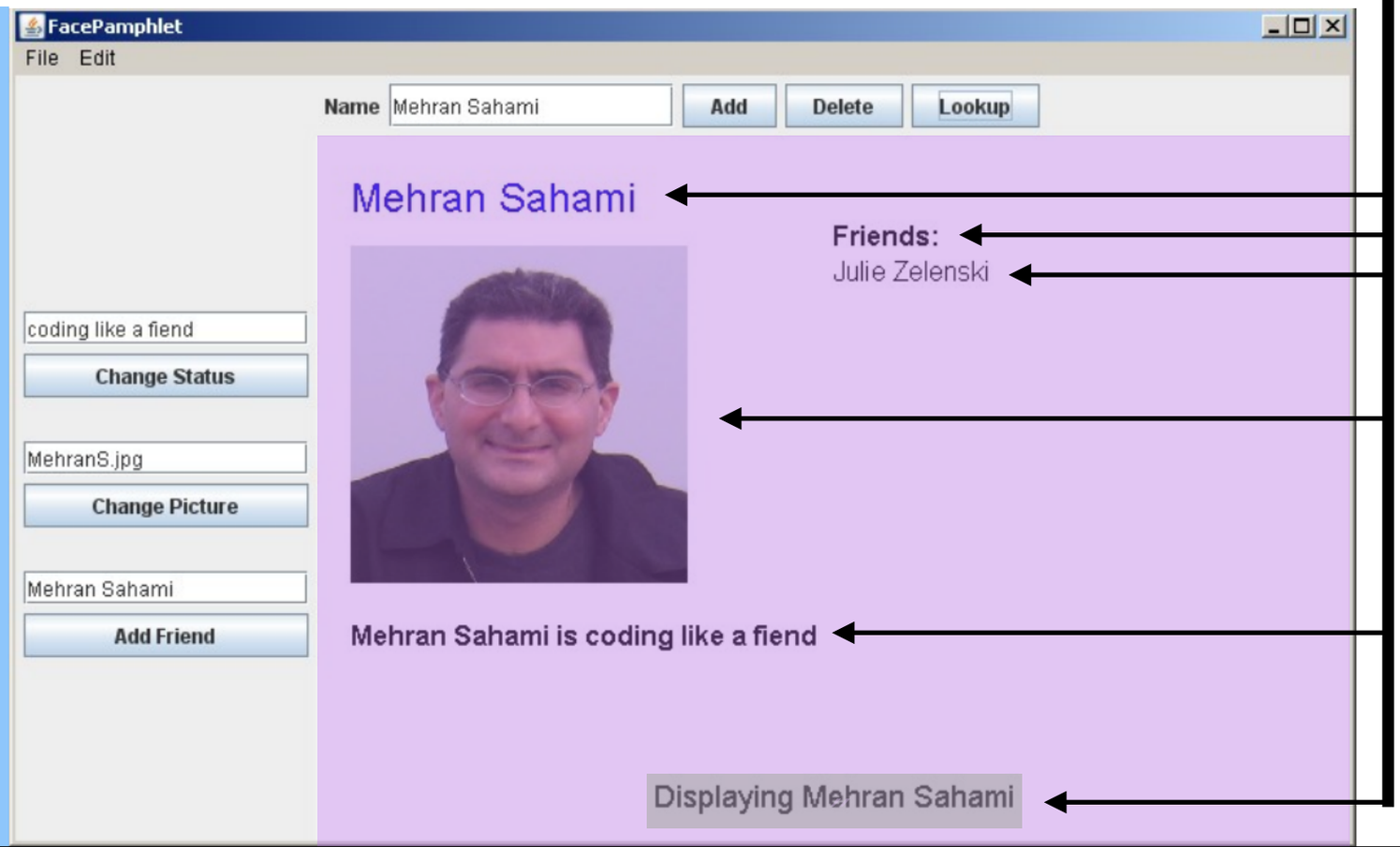
```
public void showMessage(String msg)

public void displayProfile(FacePamphletProfile profile)
```

GObjects

currentProfile

GObjects

(instance variables)



FacePamphlet
File
Edit
Name
Mehran Sahami
Add
Delete
Lookup
Mehran Sahami
Friends:
coding like a fiend
Change Status
MehranS.jpg
Change Picture
Mehran Sahami
Add Friend
Mehran Sahami is coding like a fiend
Displaying Mehran Sahami

That's all Folks!