Collaboration Diagram for Student Login

10. Display login window

7. Request logout

9. Display login window

8. Transfer control to LoginRunner

6. Display Student

3. Transfer control to StudentRunner

2. Log in student

4. Request student information

1. Request student log in

Student

**: StudentWindow**

**: LoginWindow**

**: FileInputOutput**

**: StudentRunner**

**: LoginRunner**

5. Extract and return student

Collaboration Diagram for Administrator Adding New Students

2. Log in admin

1. Request admin log in

**: LoginRunner**

**: FileInputOutput**

**: AdminAddRunner**

**: AdminRunner**

**: AdminWindow**

**: LoginWindow**

Administrator

18. Display login window

17. Display login window

7. Request add student

15. Request logout

6. Display students

14. Display students

3. Transfer control to AdminRunner

16. Transfer control to LoginRunner

13. Transfer control to AdminRunner

11. Save new student

**: AdminAddWindow**

8. Transfer control to AdminAddRunner

5. Extract and return students

4. Request student data

10. Request new student

9. Display add window

12. Send success message

Collaboration Diagram for Administrator Editing Students

24. Display login window

23. Display login window

10. Request Editing

18. Request student list

22. Transfer control to LoginRunner

7. Request student

21. Request logout

6. Display students

20. Display students

19. Transfer control to AdminRunner

9. Display student

17. Display student

16. Transfer control to AdminStudentRunner

15. Send success message

14. Replace student file

13. Request saving

12. Display edit window

11. Transfer control to AdminEditRunner

**: AdminEditWindow**

**: AdminEditRunner**

8. Transfer control to AdminStudentRunner

**: AdminStudentWindow**

**: AdminStudentRunner**

4. Request student data

5. Extract and return students

3. Transfer control to AdminRunner

2. Log in admin

1. Request admin log in

**: FileInputOutput**

**: AdminWindow**

**: AdminRunner**

Administrator

**: LoginWindow**

**: LoginRunner**

Collaboration Diagram for Administrator Deleting Students

18. Display login window

17. Display login window

16. Transfer control to LoginRunner

13. Transfer control to AdminRunner

12. Send success message

7. Request student

15. Request log out

6. Display students

14. Display students

5. Extract and return students

4. Request student data

3. Transfer control to AdminRunner

2. Log in admin

1. Request admin log in

11. Delete student file

9. Display student window

10. Request delete

**: AdminStudentWindow**

8. Transfer control to AdminStudentRunner

**: FileInputOutput**

**: AdminStudentRunner**

**: AdminWindow**

**: AdminRunner**

Administrator

**: LoginWindow**

**: LoginRunner**