CS216: Introduction to Software Engineering Techniques (Spring, 2022)
Project Assignment 1
(100 points)
Today's Date: Friday February 11
Due Date: Friday, February 25

Academic Honesty:
All assignments of CS216 are individual work. All work submitted as part of this course must be your own. You may not share work (whether from quizzes, lab assignments, or project assignments), nor may you use code provided to you by others, except for your instructor. You are allowed to use the source code provided by the instructor of this course only.

(You should include your name and section number as part of the comments for your project assignment!!!)

The following are some sample outputs when you run your program:

$ ./Project1↵

Warning: need exactly one command line argument.
Usage: ./Project1 inputfile_name

Then try to execute your program with one command line argument, and the following shows a sample output:

$ ./Project1 actor_movies.txt↵

Warning: cannot open file named actor_movies.txt !

Then try to execute your program with one command line argument again, and the following shows a sample output:

$ ./Project1 actor_movies_long.txt↵

This application stores information about Actors and their
Movies, please choose your option (Enter Q or q to quit):
1. Actors in Movies
2. Actors and co-actors
5↵
Invalid option!
This application stores information about Actors and their
Movies, please choose your option (Enter Q or q to quit):
1. Actors in Movies
2. Actors and co-actors
option one↵

Invalid option!
This application stores information about Actors and their
Movies, please choose your option (Enter Q or q to quit):
1. Actors in Movies
2. Actors and co-actors
1↵

Please input the first movie title: got Mail↵
Please input the second movie title: catch me↵
Your input matches the following two movies:
You've Got Mail (1998)
Catch Me If You Can (2002)
Both movies are in the database, please continue...
Please input your menu option (enter Q or q to quit)
A -- to print all the actors in either of the two movies.
C -- to print all the common actors in both of the movies.
O -- to print all the actors who are in only one movie, but
not in both.
J↵

Invalid Option!
Please input your menu option (enter Q or q to quit)
A -- to print all the actors in either of the two movies.
C -- to print all the common actors in both of the movies.
O -- to print all the actors who are in only one movie, but
not in both.
a↵

All the actors in either of the two movies:
Christopher Walken
Greg Kinnear
Leonardo DiCaprio
Martin Sheen
Meg Ryan
Parker Posey
Tom Hanks
Please input your menu option (enter Q or q to quit)
A -- to print all the actors in either of the two movies.
C -- to print all the common actors in both of the movies.
O -- to print all the actors who are in only one movie, but
not in both.
C↵

Common actors in both movies:
Tom Hanks
Please input your menu option (enter Q or q to quit)
A -- to print all the actors in either of the two movies.
C -- to print all the common actors in both of the movies.
O -- to print all the actors who are in only one movie, but
not in both.

k↵
Invalid Option!
Please input your menu option (enter Q or q to quit)
A -- to print all the actors in either of the two movies.
C -- to print all the common actors in both of the movies.
O -- to print all the actors who are in only one movie, but
not in both.
O↵
Actors only in one of two movies:
Christopher Walken
Greg Kinnear
Leonardo DiCaprio
Martin Sheen
Meg Ryan
Parker Posey
Please input your menu option (enter Q or q to quit)
A -- to print all the actors in either of the two movies.
C -- to print all the common actors in both of the movies.
O -- to print all the actors who are in only one movie, but
not in both.
q↵
This application stores information about Actors and their
Movies, please choose your option (Enter Q or q to quit):
1. Actors in Movies
2. Actors and co-actors
1↵
Please input the first movie title: **school of rock**↵
Please input the second movie title: **hight fidelity**↵
Invalid movie title.
This application stores information about Actors and their
Movies, please choose your option (Enter Q or q to quit):
1. Actors in Movies
2. Actors and co-actors
1↵
Please input the first movie title: **school of rock**↵
Please input the second movie title: **high Fidelity**↵
Your input matches the following two movies:
School of Rock (2003)
High Fidelity (2000)
Both movies are in the database, please continue...
Please input your menu option (enter Q or q to quit)
A -- to print all the actors in either of the two movies.
C -- to print all the common actors in both of the movies.
O -- to print all the actors who are in only one movie, but
not in both.
A↵

All the actors in either of the two movies:
Iben Hjejle
Jack Black
Joan Cusack
John Cusack
Mike White
Sarah Silverman
Todd Louiso
Please input your menu option (enter Q or q to quit)
A -- to print all the actors in either of the two movies.
C -- to print all the common actors in both of the movies.
O -- to print all the actors who are in only one movie, but
not in both.
O↵
Actors only in one of two movies:
Iben Hjejle
Joan Cusack
John Cusack
Mike White
Sarah Silverman
Todd Louiso
Please input your menu option (enter Q or q to quit)
A -- to print all the actors in either of the two movies.
C -- to print all the common actors in both of the movies.
O -- to print all the actors who are in only one movie, but
not in both.
c↵
Common actors in both movies:
Jack Black
Please input your menu option (enter Q or q to quit)
A -- to print all the actors in either of the two movies.
C -- to print all the common actors in both of the movies.
O -- to print all the actors who are in only one movie, but
not in both.
Q↵
This application stores information about Actors and their
Movies, please choose your option (Enter Q or q to quit):
1. Actors in Movies
2. Actors and co-actors
2↵
Finding the co-actors of the actor by typing his/her name:
Yi Pike↵
The actor name you entered is not in the database.
This application stores information about Actors and their
Movies, please choose your option (Enter Q or q to quit):
1. Actors in Movies
2. Actors and co-actors

Finding the co-actors of the actor by typing his/her name:

Tom Hanks↵

The co-actors of Tom Hanks in the movie "'burbs, The (1989)" are:

Bruce Dern

Carrie Fisher

Rick Ducommun

****

The co-actors of Tom Hanks in the movie "Apollo 13 (1995)" are:

Bill Paxton

Gary Sinise

Kevin Bacon

****

The co-actors of Tom Hanks in the movie "Bachelor Party (1984)" are:

Adrian Zmed

George Grizzard

Tawny Kitaen

****

The co-actors of Tom Hanks in the movie "Big (1988)" are:

Elizabeth Perkins

John Heard

Robert Loggia

****

The co-actors of Tom Hanks in the movie "Cast Away (2000)" are:

Chris Noth

Helen Hunt

Nick Searcy

****

The co-actors of Tom Hanks in the movie "Catch Me If You Can (2002)" are:

Christopher Walken

Leonardo DiCaprio

Martin Sheen

****

The co-actors of Tom Hanks in the movie "Forrest Gump (1994)" are:

Gary Sinise

Mykelti Williamson

Robin Wright Penn

****

The co-actors of Tom Hanks in the movie "Green Mile, The (1999)" are:

Bonnie Hunt

David Morse
Michael Clarke Duncan
****
The co-actors of Tom Hanks in the movie "Joe Versus the Volcano (1990)" are:
Lloyd Bridges
Meg Ryan
Robert Stack
****
The co-actors of Tom Hanks in the movie "League of Their Own, A (1992)" are:
Geena Davis
Lori Petty
Madonna
****
The co-actors of Tom Hanks in the movie "Money Pit, The (1986)" are:
Alexander Godunov
Maureen Stapleton
Shelley Long
****
The co-actors of Tom Hanks in the movie "Nothing in Common (1986)" are:
Eva Marie Saint
Hector Elizondo
Jackie Gleason
****
The co-actors of Tom Hanks in the movie "Philadelphia (1993)" are:
Buzz Kilman
Denzel Washington
Roberta Maxwell
****
The co-actors of Tom Hanks in the movie "Punchline (1988)" are:
John Goodman
Mark Rydell
Sally Field
****
The co-actors of Tom Hanks in the movie "Road to Perdition (2002)" are:
Jennifer Jason Leigh
Paul Newman
Rob Maxey
Tyler Hoechlin
****
The co-actors of Tom Hanks in the movie "Saving Private

Ryan (1998)" are:
Edward Burns
Matt Damon
Tom Sizemore
****
The co-actors of Tom Hanks in the movie "Sleepless in Seattle (1993)" are:
Bill Pullman
Meg Ryan
Ross Malinger
****
The co-actors of Tom Hanks in the movie "Splash (1984)" are:
Daryl Hannah
Eugene Levy
John Candy
****
The co-actors of Tom Hanks in the movie "Toy Story (1995)" are:
Don Rickles
Jim Varney
Tim Allen
****
The co-actors of Tom Hanks in the movie "Toy Story 2 (1999)" are:
Joan Cusack
Kelsey Grammer
Tim Allen
****
The co-actors of Tom Hanks in the movie "Turner & Hooch (1989)" are:
Craig T. Nelson
Mare Winningham
Reginald VelJohnson
****
The co-actors of Tom Hanks in the movie "Volunteers (1985)" are:
John Candy
Rita Wilson
Tim Thomerson
****
The co-actors of Tom Hanks in the movie "You've Got Mail (1998)" are:
Greg Kinnear
Meg Ryan
Parker Posey
****

This application stores information about Actors and their Movies, please choose your option (Enter Q or q to quit):
1. Actors in Movies
2. Actors and co-actors
2↵
Finding the co-actors of the actor by typing his/her name:
Audrey Hepburn↵
The co-actors of Audrey Hepburn in the movie "Breakfast at Tiffany's (1961)" are:
Buddy Ebsen
George Peppard
Patricia Neal
****
The co-actors of Audrey Hepburn in the movie "Charade (1963)" are:
Cary Grant
James Coburn
Walter Matthau
****
The co-actors of Audrey Hepburn in the movie "Children's Hour, The (1961)" are:
James Garner
Miriam Hopkins
Shirley MacLaine
****
The co-actors of Audrey Hepburn in the movie "Funny Face (1957)" are:
Fred Astaire
Kay Thompson
Michel Auclair
****
The co-actors of Audrey Hepburn in the movie "Love in the Afternoon (1957)" are:
Gary Cooper
Maurice Chevalier
Van Doude
****
The co-actors of Audrey Hepburn in the movie "My Fair Lady (1964)" are:
Rex Harrison
Stanley Holloway
Wilfrid Hyde-White
****
The co-actors of Audrey Hepburn in the movie "Robin and Marian (1976)" are:
Richard Harris
Robert Shaw

Sean Connery
****
The co-actors of Audrey Hepburn in the movie "Roman Holiday (1953)" are:
Eddie Albert
Gregory Peck
Hartley Power
****
The co-actors of Audrey Hepburn in the movie "Sabrina (1954)" are:
Humphrey Bogart
Walter Hampden
William Holden
****
The co-actors of Audrey Hepburn in the movie "They All Laughed (1981)" are:
Ben Gazzara
John Ritter
Patti Hansen
****
The co-actors of Audrey Hepburn in the movie "Unforgiven, The (1960)" are:
Audie Murphy
Burt Lancaster
John Saxon
****
The co-actors of Audrey Hepburn in the movie "Wait Until Dark (1967)" are:
Alan Arkin
Efram Zimbalist Jr.
Richard Crenna
****
The co-actors of Audrey Hepburn in the movie "War and Peace (1956)" are:
Henry Fonda
Mel Ferrer
Vittorio Gassman
****
This application stores information about Actors and their Movies, please choose your option (Enter Q or q to quit):
1. Actors in Movies
2. Actors and co-actors
2↵
Finding the co-actors of the actor by typing his/her name:
Jack Black↵
The co-actors of Jack Black in the movie "Cable Guy, The (1996)" are:

Jim Carrey
Leslie Mann
Matthew Broderick
****
The co-actors of Jack Black in the movie "High Fidelity
(2000)" are:
Iben Hjejle
John Cusack
Todd Louiso
****
The co-actors of Jack Black in the movie "NeverEnding Story
III, The (1994)" are:
Carole Finn
Jason James Richter
Melody Kay
****
The co-actors of Jack Black in the movie "Saving Silverman
(2001)" are:
Amanda Peet
Jason Biggs
Steve Zahn
****
The co-actors of Jack Black in the movie "School of Rock
(2003)" are:
Joan Cusack
Mike White
Sarah Silverman
****
The co-actors of Jack Black in the movie "Shallow Hal
(2001)" are:
Gwyneth Paltrow
Jason Alexander
Joe Viterelli
****
This application stores information about Actors and their
Movies, please choose your option (Enter Q or q to quit):
1. Actors in Movies
2. Actors and co-actors
3↵
Invalid option!
This application stores information about Actors and their
Movies, please choose your option (Enter Q or q to quit):
1. Actors in Movies
2. Actors and co-actors
q↵
Thank you for using my program, bye...

Note that the blue part is the user input and ↵ represents return key.