

Assignment #2

Worth: 10% of final grade

Account Ticketing System

Milestone	Worth	Due Date	Submission Required
1	10%	(Suggested Target: November 16 th)	NO
2	40%	November 19 th by 23:59 EST (end of Week 10)	YES
3	10%	(Suggested Target: November 26 th)	NO
4	40%	December 3 rd by 23:59 EST (end of Week 12)	YES

A2-MS2: Sample Output (SHORT)

The SHORT submission option will qualify you to **potentially earn a maximum of 70% (B)**.

Also available, is a text file "**a2ms2_4-long-inputs.txt**" which contains only the user inputs and can be used to help automate testing your work by copying and pasting it into your command window.

```
#####
Starting Account Ticketing System...
  Loading account data... (15 accounts loaded)
  Loading ticket data... (14 tickets loaded)
#####

=====
Account Ticketing System - Login
=====
1) Login to the system
0) Exit application
-----

Selection: 2
ERROR: Value must be between 0 and 1 inclusive: 0

Are you sure you want to exit? ([Y]es|[N]o): n

=====
Account Ticketing System - Login
=====
1) Login to the system
0) Exit application
-----

Selection: 1

Enter the account#: 30004
User Login       : agentJ
```

```

Password      : TT*&21tt
INVALID user login/password combination! [attempts remaining:2]

Enter the account#: 50008
User Login    : userA
Password      : TT*&21tt
INVALID user login/password combination! [attempts remaining:1]

Enter the account#: 50008
User Login    : agentJ
Password      : 12345678
INVALID user login/password combination! [attempts remaining:0]

ERROR: Access Denied.

<< ENTER key to Continue... >>[ENTER]

```

```

=====
Account Ticketing System - Login
=====
1) Login to the system
0) Exit application
-----

```

Selection: 1

```

Enter the account#: 50008
User Login    : agentJ
Password      : TT*&21tt

```

AGENT: Will Smith (50008)

```

=====
Account Ticketing System - Agent Menu
=====
1) Add a new account
2) Modify an existing account
3) Remove an account
4) List accounts: detailed view
-----
5) List new tickets
6) List active tickets
7) List closed tickets
8) Add a new ticket
9) Manage a ticket
-----
0) Logout

```

Selection: 4

Acct#	Acct.Type	Full Name	Birth	Income	Country	Login	Password
30001	CUSTOMER	Silly Sally	1990	150000.10	CANADA		
50599	AGENT	Fred Flintstone	1972	2250400.22	AFRICA	agent1	y*b*##@*
30004	CUSTOMER	Betty Boop	1978	250800.74	INDIA		
50008	AGENT	Will Smith	1952	2350600.82	U.S.A.	agentJ	T***2*t*
30020	CUSTOMER	Shrimpy Shrimp	2000	350500.35	KOREA		
34000	AGENT	Xyla Yates	1991	61907.58	GREECE	Cherokee	E*1*d*&*
50007	CUSTOMER	Chaney Kinney	1963	22288.09	SLOVENIA		

```

30014 AGENT Hanae Horn 1999 35403.36 SPAIN Keiko R*5*r*&*
40021 CUSTOMER Kane Lancaster 1951 77711.60 PORTUGAL
35035 CUSTOMER Honorato Banks 1999 83024.91 HONDURAS
42042 CUSTOMER Dexter Martin 1932 40187.20 GUAM
35049 CUSTOMER Buck Odom 1990 60494.16 LESOTHO
44056 CUSTOMER Craig Mcknight 1961 91914.61 BAHAMAS
34063 CUSTOMER Jeffrey Gills 1989 27746.17 SRI LANKA
50070 AGENT Wylie Pollard 1990 61384.65 ALBANIA Lara E*4*v*&*

```

<< ENTER key to Continue... >> **[ENTER]**

AGENT: Will Smith (50008)

=====

Account Ticketing System - Agent Menu

=====

- 1) Add a new account
- 2) Modify an existing account
- 3) Remove an account
- 4) List accounts: detailed view

- 5) List new tickets
- 6) List active tickets
- 7) List closed tickets
- 8) Add a new ticket
- 9) Manage a ticket

0) Logout

Selection: **6**

Ticket	Acct#	Full Name	Status	Subject	Messages
060001	30004	Betty Boop	ACTIVE	Frequent Disconnects	5
080599	30001	Silly Sally	ACTIVE	No power/does not turn on	1
080004	30020	Shrimpy Shrimp	ACTIVE	My head hurts!	3
080020	30020	Shrimpy Shrimp	ACTIVE	It's broken/does not work	5
030530	30004	Betty Boop	ACTIVE	Does not respond to command...	17
080204	30001	Silly Sally	ACTIVE	It's very messy!	2
040599	35049	Buck Odom	ACTIVE	Power Issue	1
040001	40021	Kane Lancaster	ACTIVE	Connectivity Problem	5
040530	40021	Kane Lancaster	ACTIVE	Not doing what it's told...	17
040004	35049	Buck Odom	ACTIVE	Causes bodily harm!	3
040204	50070	Wylie Pollard	ACTIVE	It's very messy!	2

Enter the ticket number to view the messages or

0 to return to previous menu: **80004**

=====

080004 (ACTIVE) Re: My head hurts!

=====

CUSTOMER (Shrimpy Shrimp):

When the unit is placed on my head it hurts.

AGENT (Will Smith):

Don't place it on your head.

CUSTOMER (Shrimpy Shrimp):

I don't understand - why not?

<< ENTER key to Continue... >>[ENTER]

Ticket	Acct#	Full Name	Status	Subject	Messages
060001	30004	Betty Boop	ACTIVE	Frequent Disconnects	5
080599	30001	Silly Sally	ACTIVE	No power/does not turn on	1
080004	30020	Shrimpy Shrimp	ACTIVE	My head hurts!	3
080020	30020	Shrimpy Shrimp	ACTIVE	It's broken/does not work	5
030530	30004	Betty Boop	ACTIVE	Does not respond to command...	17
080204	30001	Silly Sally	ACTIVE	It's very messy!	2
040599	35049	Buck Odom	ACTIVE	Power Issue	1
040001	40021	Kane Lancaster	ACTIVE	Connectivity Problem	5
040530	40021	Kane Lancaster	ACTIVE	Not doing what it's told...	17
040004	35049	Buck Odom	ACTIVE	Causes bodily harm!	3
040204	50070	Wylie Pollard	ACTIVE	It's very messy!	2

Enter the ticket number to view the messages or
0 to return to previous menu: 0

AGENT: Will Smith (50008)

Account Ticketing System - Agent Menu

- 1) Add a new account
- 2) Modify an existing account
- 3) Remove an account
- 4) List accounts: detailed view

- 5) List new tickets
- 6) List active tickets
- 7) List closed tickets
- 8) Add a new ticket
- 9) Manage a ticket

0) Logout

Selection: 1

ERROR: Account listing is FULL, call ITS Support!

<< ENTER key to Continue... >>[ENTER]

AGENT: Will Smith (50008)

Account Ticketing System - Agent Menu

- 1) Add a new account
- 2) Modify an existing account
- 3) Remove an account
- 4) List accounts: detailed view

- 5) List new tickets
- 6) List active tickets

```
7) List closed tickets
8) Add a new ticket
9) Manage a ticket
-----
0) Logout

Selection: 3

Enter the account#: 30020

Acct# Acct.Type Full Name      Birth Income      Country  Login      Password
-----
30020 CUSTOMER  Shrimpy Shrimp    2000    350500.35 KOREA

Are you sure you want to remove this record? ([Y]es|[N]o): Y

*** Account Removed! (3 ticket(s) removed) ***

<< ENTER key to Continue... >> [ENTER]

AGENT: Will Smith (50008)
=====
Account Ticketing System - Agent Menu
=====
1) Add a new account
2) Modify an existing account
3) Remove an account
4) List accounts: detailed view
-----
5) List new tickets
6) List active tickets
7) List closed tickets
8) Add a new ticket
9) Manage a ticket
-----
0) Logout

Selection: 3

Enter the account#: 30001

Acct# Acct.Type Full Name      Birth Income      Country  Login      Password
-----
30001 CUSTOMER  Silly Sally       1990    150000.10 CANADA

Are you sure you want to remove this record? ([Y]es|[N]o): Y

*** Account Removed! (2 ticket(s) removed) ***

<< ENTER key to Continue... >> [ENTER]

AGENT: Will Smith (50008)
=====
Account Ticketing System - Agent Menu
=====
1) Add a new account
2) Modify an existing account
3) Remove an account
```

```
4) List accounts: detailed view
-----
5) List new tickets
6) List active tickets
7) List closed tickets
8) Add a new ticket
9) Manage a ticket
-----
0) Logout

Selection: 1

New Account Data (Account#:50600)
-----
Enter the account type (A=Agent | C=Customer): A

Person Data Input
-----
Enter the person's full name (30 chars max): Funny Phillis
Enter birth year (current age must be between 18 and 110): 2003
Enter the household Income: $765432.11
Enter the country (30 chars max.): Scotland

User Login Data Input
-----
Enter user login (10 chars max): agent Z
ERROR: The user login must NOT contain whitespace characters.
Enter user login (10 chars max): agentZ
Enter the password (must be 8 chars in length): TT-/tt88
SECURITY: Password must contain 2 of each:
    Digit: 0-9
    UPPERCASE character
    lowercase character
    symbol character: !@#$%^&*
Enter the password (must be 8 chars in length): TT@@tt88

*** New account added! ***

<< ENTER key to Continue... >>[ENTER]

AGENT: Will Smith (50008)
=====
Account Ticketing System - Agent Menu
=====
1) Add a new account
2) Modify an existing account
3) Remove an account
4) List accounts: detailed view
-----
5) List new tickets
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7) List closed tickets
8) Add a new ticket
9) Manage a ticket
-----
0) Logout

Selection: 2
```

Enter the account#: **50599**

Update Account: 50599 (Fred Flintstone)

1) Update account type (current value: A)
2) Person
3) Login
0) Done
Selection: **1**

Enter the account type (A=Agent | C=Customer): **C**

Update Account: 50599 (Fred Flintstone)

1) Update account type (current value: C)
2) Person
3) Login
0) Done
Selection: **2**

Person Update Options

1) Full name (current value: Fred Flintstone)
2) Household Income (current value: \$2250400.22)
3) Country (current value: AFRICA)
0) Done
Selection: **1**

Enter the person's full name (30 chars max): **Happy Hillary**

Person Update Options

1) Full name (current value: Happy Hillary)
2) Household Income (current value: \$2250400.22)
3) Country (current value: AFRICA)
0) Done
Selection: **2**

Enter the household Income: **\$665544.33**

Person Update Options

1) Full name (current value: Happy Hillary)
2) Household Income (current value: \$665544.33)
3) Country (current value: AFRICA)
0) Done
Selection: **3**

Enter the country (30 chars max.): **Brazil**

Person Update Options

1) Full name (current value: Happy Hillary)
2) Household Income (current value: \$665544.33)
3) Country (current value: BRAZIL)
0) Done
Selection: **0**

Update Account: 50599 (Happy Hillary)

1) Update account type (current value: C)
2) Person
3) Login
0) Done
Selection: 0

AGENT: Will Smith (50008)

=====

Account Ticketing System - Agent Menu

=====

1) Add a new account
2) Modify an existing account
3) Remove an account
4) List accounts: detailed view

5) List new tickets
6) List active tickets
7) List closed tickets
8) Add a new ticket
9) Manage a ticket

0) Logout

Selection: 8

Enter the account#: 30004

Acct#	Acct.Type	Full Name	Birth	Income	Country	Login	Password
30004	CUSTOMER	Betty Boop	1978	250800.74	INDIA		

Add a new ticket for this customer? ([Y]es|[N]o): Y

New Ticket (Ticket#:070534)

Enter the ticket SUBJECT (30 chars. maximum): Empty Bottle!

Enter the ticket message details (150 chars. maximum). Press the ENTER key to submit:
Scotch bottle arrived empty!

*** New ticket created! ***

<< ENTER key to Continue... >> [ENTER]

AGENT: Will Smith (50008)

=====

Account Ticketing System - Agent Menu

=====

1) Add a new account
2) Modify an existing account
3) Remove an account
4) List accounts: detailed view

5) List new tickets
6) List active tickets

- 7) List closed tickets
- 8) Add a new ticket
- 9) Manage a ticket

0) Logout

Selection: **9**

Enter ticket number: **70534**

Ticket 070534 - Update Options

Status : ACTIVE
Subject : Empty Bottle!
Acct# : 30004
Customer: Betty Boop

- 1) Add CUSTOMER message
- 2) Add AGENT message
- 3) Close ticket
- 4) Re-activate ticket
- 0) Done

Selection: **2**

Enter the ticket message details (150 chars. maximum). Press the ENTER key to submit:

We will resend with a full bottle.

Ticket 070534 - Update Options

Status : ACTIVE
Subject : Empty Bottle!
Acct# : 30004
Customer: Betty Boop

- 1) Add CUSTOMER message
- 2) Add AGENT message
- 3) Close ticket
- 4) Re-activate ticket
- 0) Done

Selection: **1**

Enter the ticket message details (150 chars. maximum). Press the ENTER key to submit:

Thanks!

Ticket 070534 - Update Options

Status : ACTIVE
Subject : Empty Bottle!
Acct# : 30004
Customer: Betty Boop

- 1) Add CUSTOMER message
- 2) Add AGENT message
- 3) Close ticket
- 4) Re-activate ticket

```
0) Done
Selection: 0

AGENT: Will Smith (50008)
=====
Account Ticketing System - Agent Menu
=====
1) Add a new account
2) Modify an existing account
3) Remove an account
4) List accounts: detailed view
-----
5) List new tickets
6) List active tickets
7) List closed tickets
8) Add a new ticket
9) Manage a ticket
-----
0) Logout

Selection: 9

Enter ticket number: 70533

-----
Ticket 070533 - Update Options
-----
Status   : CLOSED
Subject  : Nothing happens...
Acct#    : 30004
Customer: Betty Boop
-----
1) Add CUSTOMER message
2) Add AGENT message
3) Close ticket
4) Re-activate ticket
0) Done
Selection: 4

Are you sure you want to RE-ACTIVATE this closed ticket? ([Y]es|[N]o): Y

*** Ticket re-activated! ***

-----
Ticket 070533 - Update Options
-----
Status   : ACTIVE
Subject  : Nothing happens...
Acct#    : 30004
Customer: Betty Boop
-----
1) Add CUSTOMER message
2) Add AGENT message
3) Close ticket
4) Re-activate ticket
0) Done
Selection: 0
```

AGENT: Will Smith (50008)

=====

Account Ticketing System - Agent Menu

=====

- 1) Add a new account
- 2) Modify an existing account
- 3) Remove an account
- 4) List accounts: detailed view

- 5) List new tickets
- 6) List active tickets
- 7) List closed tickets
- 8) Add a new ticket
- 9) Manage a ticket

- 0) Logout

Selection: **4**

Acct#	Acct.Type	Full Name	Birth	Income	Country	Login	Password
50600	AGENT	Funny Phillis	2003	765432.11	SCOTLAND	agentZ	T*@*t*8*
50599	CUSTOMER	Happy Hillary	1972	665544.33	BRAZIL		
30004	CUSTOMER	Betty Boop	1978	250800.74	INDIA		
50008	AGENT	Will Smith	1952	2350600.82	U.S.A.	agentJ	T***2*t*
34000	AGENT	Xyla Yates	1991	61907.58	GREECE	Cherokee	E*1*d*&*
50007	CUSTOMER	Chaney Kinney	1963	22288.09	SLOVENIA		
30014	AGENT	Hanae Horn	1999	35403.36	SPAIN	Keiko	R*5*r*&*
40021	CUSTOMER	Kane Lancaster	1951	77711.60	PORTUGAL		
35035	CUSTOMER	Honorato Banks	1999	83024.91	HONDURAS		
42042	CUSTOMER	Dexter Martin	1932	40187.20	GUAM		
35049	CUSTOMER	Buck Odom	1990	60494.16	LESOTHO		
44056	CUSTOMER	Craig Mcknight	1961	91914.61	BAHAMAS		
34063	CUSTOMER	Jeffrey Gills	1989	27746.17	SRI LANKA		
50070	AGENT	Wylie Pollard	1990	61384.65	ALBANIA	Lara	E*4*v*&*

<< ENTER key to Continue... >> **[ENTER]**

AGENT: Will Smith (50008)

=====

Account Ticketing System - Agent Menu

=====

- 1) Add a new account
- 2) Modify an existing account
- 3) Remove an account
- 4) List accounts: detailed view

- 5) List new tickets
- 6) List active tickets
- 7) List closed tickets
- 8) Add a new ticket
- 9) Manage a ticket

- 0) Logout

Selection: **6**

Ticket	Acct#	Full Name	Status	Subject	Messages
060001	30004	Betty Boop	ACTIVE	Frequent Disconnects	5
070534	30004	Betty Boop	ACTIVE	Empty Bottle!	3
070533	30004	Betty Boop	ACTIVE	Nothing happens...	1
030530	30004	Betty Boop	ACTIVE	Does not respond to command...	17
040599	35049	Buck Odom	ACTIVE	Power Issue	1
040001	40021	Kane Lancaster	ACTIVE	Connectivity Problem	5
040530	40021	Kane Lancaster	ACTIVE	Not doing what it's told...	17
040004	35049	Buck Odom	ACTIVE	Causes bodily harm!	3
040204	50070	Wylie Pollard	ACTIVE	It's very messy!	2

Enter the ticket number to view the messages or

0 to return to previous menu: **70534**

=====

070534 (ACTIVE) Re: Empty Bottle!

=====

CUSTOMER (Betty Boop):

Scotch bottle arrived empty!

AGENT (Will Smith):

We will resend with a full bottle.

CUSTOMER (Betty Boop):

Thanks!

<< ENTER key to Continue... >> **[ENTER]**

Ticket	Acct#	Full Name	Status	Subject	Messages
060001	30004	Betty Boop	ACTIVE	Frequent Disconnects	5
070534	30004	Betty Boop	ACTIVE	Empty Bottle!	3
070533	30004	Betty Boop	ACTIVE	Nothing happens...	1
030530	30004	Betty Boop	ACTIVE	Does not respond to command...	17
040599	35049	Buck Odom	ACTIVE	Power Issue	1
040001	40021	Kane Lancaster	ACTIVE	Connectivity Problem	5
040530	40021	Kane Lancaster	ACTIVE	Not doing what it's told...	17
040004	35049	Buck Odom	ACTIVE	Causes bodily harm!	3
040204	50070	Wylie Pollard	ACTIVE	It's very messy!	2

Enter the ticket number to view the messages or

0 to return to previous menu: **0**

AGENT: Will Smith (50008)

=====

Account Ticketing System - Agent Menu

=====

- 1) Add a new account
- 2) Modify an existing account
- 3) Remove an account
- 4) List accounts: detailed view

5) List new tickets

6) List active tickets

```
7) List closed tickets
8) Add a new ticket
9) Manage a ticket
-----
0) Logout

Selection: 0

Saving session modifications...
    14 account(s) saved.
    10 ticket(s) saved.
### LOGGED OUT ###

=====
Account Ticketing System - Login
=====
1) Login to the system
0) Exit application
-----

Selection: 0

Are you sure you want to exit? ([Y]es|[N]o): Y

=====
Account Ticketing System - Terminated
=====
```