

```
==29109== Memcheck, a memory error detector
==29109== Copyright (C) 2002-2017, and GNU GPL'd, by Julian Seward et al.
==29109== Using Valgrind-3.15.0 and LibVEX; rerun with -h for copyright info
==29109== Command: ./cm5c257-s21-p2
==29109==
```

```
***** kentca2@vcu.edu INBOX *****
***** Total Inbox: 0010 *****
```

1. Show Inbox
2. Show Email by ID
3. Sort Inbox by Sender
4. Sort Inbox by ID
5. Search Inbox by Keyword
6. Delete
7. Exit Inbox

1

ID	SENDER-----	MM/DD/YYYY	SUBJECT-----
--	-----	--/--/----	-----
00	- asonmez@mail.com	- 11/20/2020	- Welcome to your inbox.
01	- mmartinez@mail.com	- 11/30/2020	- Padding out your inbox.
02	- dboyle@mail.com	- 12/02/2020	- 3rd email!
03	- cbluer@mail.com	- 12/08/2020	- 4th email!
04	- cboyle@mail.com	- 12/18/2020	- 5th email!
05	- sblack@mail.com	- 01/01/2021	- 6th email!
06	- sblack@mail.com	- 01/05/2021	- 7th email!
07	- sblack@mail.com	- 02/15/2021	- 8th email!
08	- sblack@mail.com	- 02/25/2021	- 9th email!
09	- dboyle@mail.com	- 03/15/2021	- Last email!

```
***** kentca2@vcu.edu INBOX *****
***** Total Inbox: 0010 *****
```

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2

Enter the ID of the email you want to read:

2

dboyle@mail.com - 3rd email!  
Email Received on: 12/2/2020

Alright, time for another email for your inbox. Not going too lie, it's a bit of a pain coming up with stuff for these strings. Anyways, have fun with your code!

```
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3

```
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02	- dboyle@mail.com	- 12/02/2020	- 3rd email!
09	- dboyle@mail.com	- 03/15/2021	- Last email!
01	- mmartinez@mail.com	- 11/30/2020	- Padding out your inbox.
06	- sblack@mail.com	- 01/05/2021	- 7th email!
07	- sblack@mail.com	- 02/15/2021	- 8th email!
08	- sblack@mail.com	- 02/25/2021	- 9th email!
05	- sblack@mail.com	- 01/01/2021	- 6th email!

```
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5

Enter the keyword you are searching for:  
oyl

ID	SENDER-----	MM/DD/YYYY	SUBJECT
--	-----	--/--/----	
04	- cboyle@mail.com	- 12/18/2020	- 5th email!
02	- dboyle@mail.com	- 12/02/2020	- 3rd email!
09	- dboyle@mail.com	- 03/15/2021	- Last email!

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\*\*\*\*\* Total Inbox: 0010 \*\*\*\*\*

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5

Enter the keyword you are searching for:  
you

ID	SENDER-----	MM/DD/YYYY	SUBJECT
--	-----	--/--/----	
00	- asonmez@mail.com	- 11/20/2020	- Welcome to your inbox.
02	- dboyle@mail.com	- 12/02/2020	- 3rd email!
01	- mmartinez@mail.com	- 11/30/2020	- Padding out your inbox.

\*\*\*\*\* kentca2@vcu.edu INBOX \*\*\*\*\*  
\*\*\*\*\* Total Inbox: 0010 \*\*\*\*\*

1. Show Inbox
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6. Delete
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6

Enter the ID of the e-mail you want to delete:  
2  
Email with the ID = 2 is deleted

\*\*\*\*\* kentca2@vcu.edu INBOX \*\*\*\*\*  
\*\*\*\*\* Total Inbox: 0009 \*\*\*\*\*

1. Show Inbox
2. Show Email by ID
3. Sort Inbox by Sender
4. Sort Inbox by ID
5. Search Inbox by Keyword
6. Delete
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1

ID	SENDER-----	MM/DD/YYYY	SUBJECT-----
--	-----	--/--/----	-----
00	- asonmez@mail.com	- 11/20/2020	- Welcome to your inbox.
03	- cbluer@mail.com	- 12/08/2020	- 4th email!
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09	- dboyle@mail.com	- 03/15/2021	- Last email!
01	- mmartinez@mail.com	- 11/30/2020	- Padding out your inbox.
06	- sblack@mail.com	- 01/05/2021	- 7th email!
07	- sblack@mail.com	- 02/15/2021	- 8th email!
08	- sblack@mail.com	- 02/25/2021	- 9th email!
05	- sblack@mail.com	- 01/01/2021	- 6th email!

\*\*\*\*\* kentca2@vcu.edu INBOX \*\*\*\*\*  
\*\*\*\*\* Total Inbox: 0009 \*\*\*\*\*

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5

Enter the keyword you are searching for:  
you

ID	SENDER-----	MM/DD/YYYY	SUBJECT
--	-----	--/--/----	-----
00	- asonmez@mail.com	- 11/20/2020	- Welcome to your inbox.
01	- mmartinez@mail.com	- 11/30/2020	- Padding out your inbox.

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4

\*\*\*\*\* kentca2@vcu.edu INBOX \*\*\*\*\*  
\*\*\*\*\* Total Inbox: 0009 \*\*\*\*\*

1. Show Inbox
2. Show Email by ID
3. Sort Inbox by Sender
4. Sort Inbox by ID



```

4. Sort Inbox by ID
5. Search Inbox by Keyword
6. Delete
7. Exit Inbox

1

ID  SENDER-----  MM/DD/YYYY  SUBJECT-----
--  -----  --/--/----  -----
09 - dboyle@mail.com - 03/15/2021 - Last email!
08 - sblack@mail.com - 02/25/2021 - 9th email!
07 - sblack@mail.com - 02/15/2021 - 8th email!
06 - sblack@mail.com - 01/05/2021 - 7th email!
05 - sblack@mail.com - 01/01/2021 - 6th email!
04 - cboyle@mail.com - 12/18/2020 - 5th email!
03 - cbluer@mail.com - 12/08/2020 - 4th email!
01 - mmartinez@mail.com - 11/30/2020 - Padding out your inbox.
00 - asonmez@mail.com - 11/20/2020 - Welcome to your inbox.

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***** Total Inbox: 0009 *****

1. Show Inbox
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3. Sort Inbox by Sender
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7

Exiting e-mail client - Good Bye!

==29109==
==29109== HEAP SUMMARY:
==29109==    in use at exit: 0 bytes in 0 blocks
==29109== total heap usage: 2 allocs, 2 frees, 4,512,016 bytes allocated
==29109==
==29109== All heap blocks were freed -- no leaks are possible
==29109==
==29109== For lists of detected and suppressed errors, rerun with: -s
==29109== ERROR SUMMARY: 0 errors from 0 contexts (suppressed: 0 from 0)
[kentca2@compile p2]$ 

```

Valgrind run at the bottom of last screenshot

Program may have issues if any string inputted is bigger than max size given