

Test Data Documentation

Chen En Lee, A20435695

Sarbani Bhattacharyya, A20383075

Test Case for myV2p():

Test 1: myV2p(100, 1), test for read

Test 2: myV2p(100, 2), test for write

Test 3: myV2p(500, 1), test the limit

Test 4: myV2p(500, 2), test the limit

Test 5: myV2p(1000, 1), test the limit

Test 6: myV2p(1000, 2), test the limit

Test 7: myV2p(10000, 1), test the limit

Test 8: myV2p(10000, 2), test the limit

Test 9: myV2p(20000, 1), reach the limit of write bit

Test 10: myV2p(20000, 2), reach the limit of read bit

== Adding more memory==

Test 11: myV2p(20000, 1), test again to see what will happen if we increase the memory

Test 12: myV2p(20000, 2), test again to see what will happen if we increase the memory

==Decreasing the memory==

Test 13: myV2p(20000, 1),

Test 14: myV2p(20000, 2)

Test 15: myV2p(1000000000, 1), pass a large address to test the valid bit

Test 16: myV2p(100,3) , pass a invalid operation to check the exception.

```

=====
Test Case1: pass 100, Read...
=====

Physical Memory of 100 is 234016907.
Pages: 0
In 0 Page Table Directory, 0 Page Table entry
It is readable
=====
Test Case2: pass 100, Write...
=====

Physical Memory of 100 is 234016907.
Pages: 0
In 0 Page Table Directory, 0 Page Table entry
It's writable
=====
Test Case3: pass 500, Read...
=====

Physical Memory of 500 is 234017307.
Pages: 0
In 0 Page Table Directory, 0 Page Table entry
It is readable
=====
Test Case4: pass 500, Write...
=====

Physical Memory of 500 is 234017307.
Pages: 0
In 0 Page Table Directory, 0 Page Table entry
It's writable
=====
Test Case5: pass 1000, Read...
=====

Physical Memory of 1000 is 234017807.
Pages: 0
In 0 Page Table Directory, 0 Page Table entry
It is readable

```

```

=====
Test Case6: pass 1000, Write...
=====

Physical Memory of 1000 is 234017807.
Pages: 0
In 0 Page Table Directory, 0 Page Table entry
It's writable
=====
Test Case7: pass 10000, Read...
=====

Physical Memory of 10000 is 234026807.
Pages: 2
In 0 Page Table Directory, 2 Page Table entry
It is not readable
=====
Test Case8: pass 10000, Write...
=====

Physical Memory of 10000 is 234026807.
Pages: 2
In 0 Page Table Directory, 2 Page Table entry
It is not writable
=====
Test Case9: pass 20000, Read...
=====

Physical Memory of 20000 is 234036807.
Pages: 4
In 0 Page Table Directory, 4 Page Table entry
It is not readable
=====
Test Case10: pass 20000, Write...
=====

Physical Memory of 20000 is 234036807.
Pages: 4
In 0 Page Table Directory, 4 Page Table entry
It is not writable

```

```
=====
Test Case11: Again, pass 20000, Read...
=====

Physical Memory of 20000 is 234036807.
Pages: 4
In 0 Page Table Directory, 4 Page Table entry
It is readable
=====
Test Case12: Again, pass 20000, Write...
=====

Physical Memory of 20000 is 234036807.
Pages: 4
In 0 Page Table Directory, 4 Page Table entry
It's writable
=====
Decreasing the memory...
=====

=====
Test Case13: Again, pass 20000, Read...
=====

Physical Memory of 20000 is 234036807.
Pages: 4
In 0 Page Table Directory, 4 Page Table entry
It is not readable
=====
Test Case14: Again, pass 20000, Write...
=====

Physical Memory of 20000 is 234036807.
Pages: 4
In 0 Page Table Directory, 4 Page Table entry
It is not writable
```

```
=====
Test Case15: Passing a vary large address
=====

Physical Memory of 1000000000 is 1233705511.
Pages: 244140
In 238 Page Table Directory, 428 Page Table entry
This page is not valid!

=====
Test Case16: Passing a wrong operation(3)
=====

Operation can only be 1 or 2!
```

Test cases for hasPage:

Test 1: Check the initial memory

Test 2: Add 1024 byte to the process

Test 3: Decrease 1024 byte to the process.

Test 4: Add 2048 bytes to the process

Test 5: Add 4096 bytes(1 page) to the process

Test 6: Add 4097 bytes to the process

Test 7: Pass an invalid process ID to check the exception.

Test 8: Pass two process by using fork and increase the size if the child process

```
=====
> Test 1 : Init page information...
=====
Process                :3
Valid Page Directory    :65
Writable Page           :2
Present Page            :65539
Readable Page           :2
.Txt and .Data Page     :3
Stack Page              :1
Heap Page                :524283
=====
> Test 2 : Add 1024 bytes...
=====
Adding 1024 bytes to memory...
Process                :3
Valid Page Directory    :65
Writable Page           :3
Present Page            :65540
Readable Page           :3
.Txt and .Data Page     :4
Stack Page              :1
Heap Page                :524282
=====
> Test 3 : Decrease 1024 bytes...
=====
Process                :3
Valid Page Directory    :65
Writable Page           :2
Present Page            :65539
Readable Page           :2
.Txt and .Data Page     :3
Stack Page              :1
Heap Page                :524283
=====
```

```

=====
> Test 4 : Add 2048 bytes...
=====
Adding 2048 bytes to memory...
Process                :3
Valid Page Directory   :65
Writable Page          :3
Present Page           :65540
Readable Page          :3
.Txt and .Data Page    :4
Stack Page             :1
Heap Page              :524282
=====
> Test 5 : Add 4096 bytes...
=====
Adding 4096 bytes to memory...
Process                :3
Valid Page Directory   :65
Writable Page          :3
Present Page           :65540
Readable Page          :3
.Txt and .Data Page    :4
Stack Page             :1
Heap Page              :524282
=====
> Test 6 : Add 4097 bytes...
=====
Adding 4097 bytes to memory...
Process                :3
Valid Page Directory   :65
Writable Page          :4
Present Page           :65541
Readable Page          :4
.Txt and .Data Page    :5
Stack Page             :1
Heap Page              :524281
=====
> Test 7 : Passing a non-existed pid
=====
Cannot find this pid in the process table!
=====

```

```

=====
> Test 8 : Passing a child pid and increasing the size of the child process by 4097
=====

=>Child Process
Process                :4
Valid Page Directory   :65
Writable Page          :5
Present Page           :65542
Readable Page          :5
.Txt and .Data Page    :6
Stack Page             :1
Heap Page              :524280

=>Parent Process
Process                :3
Valid Page Directory   :65
Writable Page          :4
Present Page           :65541
Readable Page          :4
.Txt and .Data Page    :5
Stack Page             :1
Heap Page              :524281
$S20

```