Virtual Machine Design Doc

User Features:
- Can program in a form of assembly
- Can use bit mathematics
- Can use jumps and returns
- Can use comparison operators
- Reads from a text file
- Saves code to a binary file
- Saves memory to a text file for testing

Assembly Commands:

Command	Syntax	Description
Add	add x y	Add x to y and store in x
Subtract	sub x y	Subtract y from x and store in x
Multiply	mpy x y	Multiply x by y and store in x
Divide	div x y	Divide x by y and store in x
Set	set x y	Set x to y
Modulo	mod x y	Mod x by y and store in x
Increment	inc x	Increment x by 1
Decrement	dec x	Decrement x by 1
Negate	neg x	Negate x
Or	or x y	Or x and y, store in x
And	and x y	And x and y, store in x
Xor	xor x y	Xor x and y, store in x
Not	not x	Not x
Jump	jmp x	Jump to name x
Fly	fly	Bee flies

Less than	lst x y jmp z	If x is less than y jump to z
Less than or equal	lte x y jmp z	If x is less than or equal to y jump to z
Greater than	grt x y jmp z	If x is greater than y jump to z
Greater than or equal	gte x y jmp z	If x is greater than or equal to y jump to z
Equal to	eqt x y jmp z	If x is equal to y jump to z
Not equal to	nte x y jmp z	If x is not equal to y jump to z
No-op	nop x	Wait x cycles
Error	err x	Print error message to console
End	end	End function and return to previous block