

Function name	#	Test description	Sample input			Expected result			Actual result			Pass / fail
			Type	Name	Value / value at address	Type	Name	Value / value at address	Type	Parameter name	Value / value at address	
int promptSelectMode	1	scanf() nInput < 0	int	nInput	scanf() => -1	Invalid input for nInput			Invalid input for nInput			Pass
	2	scanf() nInput = 0	int	nInput	scanf() => 0	int	function return	0	int	function return	0	Pass
	3	scanf() nInput = 1	int	nInput	scanf() => 1	int	function return	1	int	function return	1	Pass
	4	scanf() nInput > 1	int	nInput	scanf() => 2	Invalid input for nInput			Invalid input for nInput			Pass
void promptSetStats	1	scanf() 100/10/10/10/15	int *	nTargetHP	scanf() => 100	int *	nTargetHP	100	int *	nTargetHP	100	Pass
			int *	nTargetATK	scanf() => 10	int *	nTargetATK	10	int *	nTargetATK	10	Pass
			int *	nTargetDEF	scanf() => 10	int *	nTargetDEF	10	int *	nTargetDEF	10	Pass
			int *	nTargetSPD	scanf() => 10	int *	nTargetSPD	10	int *	nTargetSPD	10	Pass
			int *	nTargetCrit	scanf() => 15	int *	nTargetCrit	15	int *	nTargetCrit	15	Pass
	2	scanf() 1000/20/20/20/100	int *	nTargetHP	scanf() => 1000	Invalid input for *nTargetHP			Invalid input for *nTargetHP			Pass
			int *	nTargetATK	scanf() => 20	int *	nTargetATK	20	int *	nTargetATK	20	Pass
			int *	nTargetDEF	scanf() => 20	int *	nTargetDEF	20	int *	nTargetDEF	20	Pass
			int *	nTargetSPD	scanf() => 20	int *	nTargetSPD	20	int *	nTargetSPD	20	Pass
			int *	nTargetCrit	scanf() => 100	int *	nTargetCrit	100	int *	nTargetCrit	100	Pass
	3	scanf() 999/999/999/999/999	int *	nTargetHP	scanf() => 999	int *	nTargetHP	999	int *	nTargetHP	999	Pass
			int *	nTargetATK	scanf() => 999	int *	nTargetATK	999	int *	nTargetATK	999	Pass
			int *	nTargetDEF	scanf() => 999	int *	nTargetDEF	999	int *	nTargetDEF	999	Pass
			int *	nTargetSPD	scanf() => 999	int *	nTargetSPD	999	int *	nTargetSPD	999	Pass
			int *	nTargetCrit	scanf() => 999	Invalid input for *nTargetCrit			Invalid input for *nTargetCrit			Pass
char * equipWeapon	1	nInput = 0	int *	nTargetATK	10	int *	nTargetATK	25	int *	nTargetATK	25	Pass
			int *	nTargetSPD	10	int *	nTargetSPD	13	int *	nTargetSPD	13	Pass
			int *	nInput	0	char *	function return	"Dagger"	char *	function return	"Dagger"	Pass
	2	nInput = 1	int *	nTargetATK	10	int *	nTargetATK	30	int *	nTargetATK	30	Pass
			int *	nTargetSPD	10	int *	nTargetSPD	10	int *	nTargetSPD	10	Pass
			int *	nInput	1	char *	function return	"Katana"	char *	function return	"Katana"	Pass
	3	nInput = 2	int *	nTargetATK	10	int *	nTargetATK	50	int *	nTargetATK	50	Pass
			int *	nTargetSPD	10	int *	nTargetSPD	5	int *	nTargetSPD	5	Pass
			int *	nInput	2	char *	function return	"Broadsword"	char *	function return	"Broadsword"	Pass
	4	nInput = 3	int *	nTargetATK	10	int *	nTargetATK	10	int *	nTargetATK	10	Pass
			int *	nTargetSPD	10	int *	nTargetSPD	20	int *	nTargetSPD	20	Pass
			int *	nInput	3	char *	function return	"Fist"	char *	function return	"Fist"	Pass
char * equipArmor	1	nInput = 0	int *	nTargetHP	100	int *	nTargetHP	100	int *	nTargetHP	100	Pass
			int *	nTargetDEF	10	int *	nTargetDEF	13	int *	nTargetDEF	13	Pass
			int *	nTargetSPD	10	int *	nTargetSPD	13	int *	nTargetSPD	13	Pass
			int *	nInput	0	char *	function return	"Mythril"	char *	function return	"Mythril"	Pass
	2	nInput = 1	int *	nTargetHP	100	int *	nTargetHP	105	int *	nTargetHP	105	Pass
			int *	nTargetDEF	10	int *	nTargetDEF	18	int *	nTargetDEF	18	Pass
			int *	nTargetSPD	10	int *	nTargetSPD	10	int *	nTargetSPD	10	Pass
			int *	nInput	1	char *	function return	"Chainmail"	char *	function return	"Chainmail"	Pass
	3	nInput = 2	int *	nTargetHP	100	int *	nTargetHP	110	int *	nTargetHP	110	Pass
			int *	nTargetDEF	10	int *	nTargetDEF	28	int *	nTargetDEF	28	Pass
			int *	nTargetSPD	10	int *	nTargetSPD	6	int *	nTargetSPD	6	Pass
			int *	nInput	2	char *	function return	"Adamantite armor"	char *	function return	"Adamantite armor"	Pass
	4	nInput = 3	int *	nTargetHP	100	int *	nTargetHP	100	int *	nTargetHP	100	Pass
			int *	nTargetDEF	10	int *	nTargetDEF	2	int *	nTargetDEF	2	Pass
			int *	nTargetSPD	10	int *	nTargetSPD	20	int *	nTargetSPD	20	Pass
			int *	nInput	3	char *	function return	"No armor"	char *	function return	"No armor"	Pass
int promptWeaponSelect	1	scanf() nInput < 0	int	nInput	scanf() => -1	Invalid input for nInput			Invalid input for nInput			Pass
	2	scanf() nInput = 0	int	nInput	scanf() => 0	int	function return	0	int	function return	0	Pass
	3	scanf() nInput = 1	int	nInput	scanf() => 1	int	function return	1	int	function return	1	Pass
	4	scanf() nInput = 2	int	nInput	scanf() => 2	int	function return	2	int	function return	2	Pass
	5	scanf() nInput = 3	int	nInput	scanf() => 3	int	function return	3	int	function return	3	Pass
	6	scanf() nInput > 3	int	nInput	scanf() => 4	Invalid input for nInput			Invalid input for nInput			Pass

Function name	#	Test description	Sample input			Expected result			Actual result			Pass / fail
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int promptArmorSelect	1	scanf() nInput < 0	int	nInput	scanf() => -1	Invalid input for nInput			Invalid input for nInput			Pass
	2	scanf() nInput = 0	int	nInput	scanf() => 0	int	function return	0	int	function return	0	Pass
	3	scanf() nInput = 1	int	nInput	scanf() => 1	int	function return	1	int	function return	1	Pass
	4	scanf() nInput = 2	int	nInput	scanf() => 2	int	function return	2	int	function return	2	Pass
	5	scanf() nInput = 3	int	nInput	scanf() => 3	int	function return	3	int	function return	3	Pass
	6	scanf() nInput > 3	int	nInput	scanf() => 4	Invalid input for nInput			Invalid input for nInput			Pass
int promptPlayerEquipConfirm	1	scanf() cInput = 'Y'	char *	cInput	scanf() => 'Y'	int	function return	1	int	function return	1	Pass
	2	scanf() cInput = 'y'	char *	cInput	scanf() => 'y'	int	function return	1	int	function return	1	Pass
	3	scanf() cInput = 'N'	char *	cInput	scanf() => 'N'	int	function return	0	int	function return	0	Pass
	4	scanf() cInput = 'n'	char *	cInput	scanf() => 'n'	int	function return	0	int	function return	0	Pass
	5	scanf() cInput = 'A'	char *	cInput	scanf() => 'A'	Invalid input for cInput			Invalid input for cInput			Pass
void promptEnemyEquipConfirm	1	rand() % 4 nWeaponInput = 0 nArmorInput = 0	int *	nEnemyHP	100	int *	nEnemyHP	100	int *	nEnemyHP	100	Pass
			int *	nEnemyATK	10	int *	nEnemyATK	25	int *	nEnemyATK	25	Pass
			int *	nEnemyDEF	10	int *	nEnemyDEF	13	int *	nEnemyDEF	13	Pass
			int *	nEnemySPD	10	int *	nEnemySPD	16	int *	nEnemySPD	16	Pass
			int *	nEnemyCrit	15	int *	nEnemyCrit	15	int *	nEnemyCrit	15	Pass
			int	nWeaponInput	rand() % 4 => 0							
	2	rand() % 4 nWeaponInput = 1 nArmorInput = 1	int	nArmorInput	rand() % 4 => 0							
			int *	nEnemyHP	100	int *	nEnemyHP	105	int *	nEnemyHP	105	Pass
			int *	nEnemyATK	10	int *	nEnemyATK	30	int *	nEnemyATK	30	Pass
			int *	nEnemyDEF	10	int *	nEnemyDEF	18	int *	nEnemyDEF	18	Pass
			int *	nEnemySPD	10	int *	nEnemySPD	10	int *	nEnemySPD	10	Pass
			int *	nEnemyCrit	15	int *	nEnemyCrit	15	int *	nEnemyCrit	15	Pass
	3	rand() % 4 nWeaponInput = 2 nArmorInput = 3	int	nWeaponInput	rand() % 4 => 1							
			int	nArmorInput	rand() % 4 => 1							
			int *	nEnemyHP	100	int *	nEnemyHP	100	int *	nEnemyHP	100	Pass
			int *	nEnemyATK	10	int *	nEnemyATK	50	int *	nEnemyATK	50	Pass
			int *	nEnemyDEF	10	int *	nEnemyDEF	10	int *	nEnemyDEF	10	Pass
			int *	nEnemySPD	10	int *	nEnemySPD	15	int *	nEnemySPD	15	Pass
void processAttack	1	rand() % 100 nCritRoll ≥ nActorCrit	int *	nEnemyCrit	15	int *	nEnemyCrit	15	int *	nEnemyCrit	15	Pass
			int	nWeaponInput	rand() % 4 => 2							
			int	nArmorInput	rand() % 4 => 3							
			int	nActorATK	50	int *	nTargetCurrentHF	60	int *	nTargetCurrentHF	60	Pass
			int	nActorCrit	15							
			int *	nTargetCurrentHP	100							
	2	rand() % 100 nCritRoll ≥ nActorCrit	int	nTargetDEF	10							
			int	nActorIsPlayer	1							
			int	nCritRoll	rand() % 100 => 99							
3	nActorATK ≤ nTargetCurrentHP nActorIsPlayer is 0 or 1 nCritRoll < nActorCrit	int	nActorATK	50	int *	nTargetCurrentHF	50	int *	nTargetCurrentHF	50	Pass	
		int	nActorCrit	15								
		int *	nTargetCurrentHP	100								
		int	nTargetDEF	10								
		int	nActorIsPlayer	1								
Input conditions: nCritRoll is from rand() % 100 nCritRoll ranges from 0 to 99			int	nCritRoll	rand() % 100 => 1							

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	4	nActorATK - nTargetDEF > nTargetCurrentHP rand() % 100 nCritRoll ≥ nActorCrit	int	nActorATK	999	int *	nTargetCurrentHF	0	int *	nTargetCurrentHF	0	Pass
			int	nActorCrit	15							
			int *	nTargetCurrentHP	100							
			int	nTargetDEF	10							
			int	nActorIsPlayer	1							
			int	nCritRoll	rand() % 100 => 99							
void processBlock	1	nActorDEF = 10	int *	nActorDEF	10	int *	nActorDEF	20	int *	nActorDEF	20	Pass
Preconditions: *nActorDEF is non-negative and less than or equal to 999 nActorIsPlayer is 0 or 1	2	nActorDEF = 50	int *	nActorDEF	50	int *	nActorDEF	100	int *	nActorDEF	100	Pass
	3	nActorDEF = 999	int *	nActorDEF	999	int *	nActorDEF	1998	int *	nActorDEF	1998	Pass
void processCharge	1	nActorATK = 10 nActorSPD = 10 nActorIsCharging = 0	int *	nActorATK	10	int *	nActorATK	20	int *	nActorATK	20	Pass
			int *	nActorSPD	10	int *	nActorSPD	20	int *	nActorSPD	20	Pass
			int *	nActorIsCharging	0	int *	nActorIsCharging	0	int *	nActorIsCharging	0	Pass
			int	nActorIsPlayer	A							
	2	nActorIsCharging = 1	int *	nActorATK	20	int *	nActorATK	20	int *	nActorATK	20	Pass
			int *	nActorSPD	20	int *	nActorSPD	20	int *	nActorSPD	20	Pass
			int *	nActorIsCharging	1	int *	nActorIsCharging	0	int *	nActorIsCharging	0	Pass
			int	nActorIsPlayer	1							
	3	nActorATK = 999 nActorSPD = 999 nActorIsCharging = 0	int *	nActorATK	999	int *	nActorATK	1998	int *	nActorATK	1998	Pass
			int *	nActorSPD	999	int *	nActorSPD	1998	int *	nActorSPD	1998	Pass
			int *	nActorIsCharging	0	int *	nActorIsCharging	0	int *	nActorIsCharging	0	Pass
			int	nActorIsPlayer	1							

Screen Output	Event	Result
<pre>[=====] /_/\ /_/\ /_/\ /_/\ / _\/ / _\/ / _\/ / _\/ /_/ _\ /_/ _\ /_/ _\ /_/ _\ << Go with the light at your back, hero. >> [=====] >> Press Enter to proceed.</pre>	User presses enter key	Program progresses
<pre>[=====] Select a mode [=====] [=====] [=====] [0] Standard game Choose among sets of weapons and armor to equip [1] Dev mode Manually input player and enemy stats [=====] [=====] [=====] Choose. (0/1) [=====] >></pre>	User enters 0	Program enters Standard mode
<pre>[=====] Select a weapon. [=====] [=====] [=====] Weapon Details ----- ----- [0] Dagger A low-ATK weapon that slightly improves speed. (ATK + 15, SPD + 3) ----- ----- [1] Katana A slim blade with moderately high ATK power. (ATK + 20) ----- ----- [2] Broadsword A high-ATK blade that slightly lowers speed. (ATK + 40, SPD - 5) ----- ----- [3] Fist Using only your fists greatly improves speed. (SPD + 10) [=====] [=====] [=====] [=====] Choose. (0/1/2/3) Current stats: 100 HP / 10 ATK / 10 DEF / 10 SPD [=====] [=====] >></pre>	User enters 2	Broadsword is selected for player
<pre>[=====] You selected the following weapon: Broadsword [=====] >> Press Enter to proceed.</pre>	User presses enter key	Program progresses

Screen Output	Event	Result
<pre> ===== Select an armor. ===== ===== ===== Armor Details ----- ----- [0] Mythril Lightweight armor that increases DEF and SPD. (DEF + 3, SPD + 3) ----- ----- [1] Chainmail Standard chainmail armor that boosts DEF and HP (DEF + 8, HP + 5) ----- ----- [2] Adamantite armor Heavy armor than boosts DEF and HP; lowers SPD. (DEF + 18, HP + 10, SPD - 4) ----- ----- [3] No armor Wearing no armor greatly improves speed. (SPD + 10) ===== ===== Choose. (0/1/2/3) Current stats: 100/10/10/10 ===== ===== >> </pre>	User enters 3	No armor is selected for player
<pre> ===== You selected the following armor: No armor ===== >> Press Enter to proceed. </pre>	User presses enter key	Program progresses
<pre> ===== You will battle with the following stats: ===== ===== ===== ===== Stats Weapon Armor ----- ----- ----- ATK \ DEF \ SPD Broadsword No armor 50 / 10 / 15 ----- ----- ----- Base HP: 100 Critical chance: 15% ===== ===== ===== Proceed? (Y/y/N/n) TIP: Canceling will let you change equipment. ===== ===== >> </pre>	User enters Y	Program progresses
<pre> ===== The enemy is selecting their equipment! ===== >> Press Enter to proceed. </pre>	User presses enter key	Program progresses
<pre> ===== The enemy has chosen the following equipment: ===== ===== ===== ===== Stats Weapon Armor ----- ----- ----- ATK \ DEF \ SPD Dagger Mythril 25 / 13 / 16 ----- ----- ----- Base HP: 100 Critical chance: 15% ===== ===== ===== >> Press Enter to proceed. </pre>	Program generates value for rand() % 4	Dagger and Mythril are selected for enemy
	User presses enter key	Program progresses
<pre> ===== The enemy gladiator challenges you! Reduce their HP to 0 to win! ===== >> Press Enter to proceed. </pre>	User presses enter key	Program progresses

Screen Output	Event	Result
<pre>[=====] Enter an action (0/1/2). [=====] [-----] You VS Enemy ##### ##### HP: 100 / 100 HP: 100 / 100 [-----] ATK \ DEF \ SPD ATK / DEF / SPD 50 / 10 / 15 25 \ 13 \ 16 Critical chance: 15% Critical chance: 15% [=====] 0 0 /\ /\ /\ /\ /\ /\ [=====] [0] Attack Deal damage to the enemy. [1] Block Brace yourself. (Doubles DEF this turn) [2] Charge Charge power. (Doubles ATK and SPD next turn) [=====] >></pre>	User enters 2	Charge action is selected for player
	Program generates value for rand() % 3	Block action is selected for enemy

<pre>[=====] Enemy blocked! DEF doubled this turn. [=====] [-----] You VS Enemy ##### ##### HP: 100 / 100 HP: 100 / 100 [-----] ATK \ DEF \ SPD ATK / DEF / SPD 50 / 10 / 15 25 \ 26 \ 16 Critical chance: 15% Critical chance: 15% [=====] 0 0 /\ /\ /\ /\ /\ /\ [=====] [=====] >> Press Enter to proceed.</pre>	Enemy executes Block action	Enemy DEF is doubled
	User presses enter key	Program progresses

<pre>[=====] You charged! ATK and SPD doubled until the end of the next turn. [=====] [-----] You VS Enemy ##### ##### HP: 100 / 100 HP: 100 / 100 [-----] ATK \ DEF \ SPD ATK / DEF / SPD 100 / 10 / 30 25 \ 26 \ 16 Critical chance: 15% Critical chance: 15% [=====] 0 0 /\ /\ /\ /\ /\ /\ [=====] [=====] >> Press Enter to proceed.</pre>	Player executes Charge action	Player ATK and SPD are doubled
	User presses enter key	Program progresses

Screen Output	Event	Result
<pre>[=====] Enter an action (0/1/2). [=====] [=====] You VS Enemy #####:~::~:~::~:~::: ##:~::~:~::~:~::~:~::: HP: 85 / 100 HP: 13 / 100 [-----] ATK \ DEF \ SPD ATK / DEF / SPD 50 / 10 / 15 25 \ 13 \ 16 Critical chance: 15% Critical chance: 15% [=====] 0 0 / \ / \ / \ / \ [=====] [0] Attack Deal damage to the enemy. [1] Block Brace yourself. (Doubles DEF this turn) [2] Charge Charge power. (Doubles ATK and SPD next turn) [=====] >></pre>	Turn begins	Player ATK and SPD are reverted
	User enters 1	Block action is selected for player
	Program generates value for rand() % 3	Block action is selected for enemy

<pre>[=====] You blocked! DEF doubled this turn. [=====] [=====] You VS Enemy #####:~::~:~::~:~::: ##:~::~:~::~:~::~:~::: HP: 85 / 100 HP: 13 / 100 [-----] ATK \ DEF \ SPD ATK / DEF / SPD 50 / 20 / 15 25 \ 13 \ 16 Critical chance: 15% Critical chance: 15% [=====] 0 0 / \ / \ / \ / \ [=====] [=====] >> Press Enter to proceed.</pre>	Player executes Block action	Player DEF is doubled
	User presses enter key	Program progresses

<pre>[=====] Enemy blocked! DEF doubled this turn. [=====] [=====] You VS Enemy #####:~::~:~::~:~::: ##:~::~:~::~:~::~:~::: HP: 85 / 100 HP: 13 / 100 [-----] ATK \ DEF \ SPD ATK / DEF / SPD 50 / 20 / 15 25 \ 26 \ 16 Critical chance: 15% Critical chance: 15% [=====] 0 0 / \ / \ / \ / \ [=====] [=====] >> Press Enter to proceed.</pre>	Enemy executes Block action	Enemy DEF is doubled
	User presses enter key	Program progresses

Screen Output	Event	Result
<pre>[=====] Enter an action (0/1/2). [=====] [=====] You VS Enemy #####: HP: 85 / 100 ----- ATK \ DEF \ SPD 50 / 10 / 15 Critical chance: 15% ----- 0 0 /\ /\ /\ /\ ----- [0] Attack Deal damage to the enemy. [1] Block Brace yourself. (Doubles DEF this turn) [2] Charge Charge power. (Doubles ATK and SPD next turn) ----- >></pre>	<p>Turn begins</p> <p>User enters 0</p> <p>Program generates value for rand() % 3</p>	<p>Player DEF is reverted</p> <p>Enemy DEF is reverted</p> <p>Attack action is selected for player</p> <p>Charge action is selected for enemy</p>
<pre>[=====] Enemy charged! ATK and SPD doubled until the end of the next turn. [=====] [=====] You VS Enemy #####: HP: 85 / 100 ----- ATK \ DEF \ SPD 50 / 10 / 15 Critical chance: 15% ----- 0 0 /\ /\ /\ /\ ----- ----- ----- ----- >> Press Enter to proceed.</pre>	<p>Enemy executes Charge action</p> <p>User presses enter key</p>	<p>Enemy ATK and SPD are doubled</p> <p>Program progresses</p>
<pre>[=====] You attacked! Dealt 13 damage. [=====] [=====] You VS Enemy #####: HP: 85 / 100 ----- ATK \ DEF \ SPD 50 / 10 / 15 Critical chance: 15% ----- 0 0 /\ /\ /\ /\ ----- ----- ----- ----- >> Press Enter to proceed.</pre>	<p>Player executes Attack action</p> <p>User presses enter key</p>	<p>Enemy HP is reduced by Player ATK - Enemy DEF = 50 - 13 = 37 Since 37 > Enemy HP, it is instead reduced by Enemy HP = 13</p> <p>Program progresses</p>
<pre>[=====] G A M E O V E R You won! ----- >> Press Enter to proceed.</pre>	<p>User presses enter key</p>	<p>Program progresses</p>

Screen Output	Event	Result
Program terminates		

