

Decision Table Based Testing

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- Conditions:
- 1. $0.25 < \text{Round_shot.radius} > 0$
 - 2. $10 < \text{Round_shot.mass} > 0$

Table 1: Decision Table for Round Shot Class

Conditions	$0.25 < \text{Round_shot.radius} > 0$	F	F	T	T
	$10 < \text{Round_shot.mass} > 0$	F	T	F	T
Actions	Check Mass	X		X	
	Check Radius	X	X		
	Valid Result				X

- Conditions:
- 1. $\text{cannon.initialSpeed} > 0$
 - 2. $\text{cannon.externalForce} \neq [0,0,0]$
 - 3. $0.25 < \text{Round_shot.radius} > 0$
 - 4. $10 < \text{Round_shot.mass} > 0$
 - 5. $\text{InProgressSimulation} == \text{true}$

Table 2: Decision Table for Integration Testing

Conditions	$\text{cannon.initialSpeed} > 0$	-	F	T	T	T	T	F	T	T
	$\text{cannon.externalForce} \neq [0,0,0]$	-	T	F	T	T	T	F	T	T
	$\text{Round_shot.radius} > 0$	-	T	T	F	T	T	F	T	T
	$\text{Round_shot.radius} < 0.25$	-	T	T	T	T	T	T	F	T
	$\text{Round_shot.mass} > 0$	-	T	T	T	F	T	F	T	T
	$\text{Round_shot.mass} < 10$	-	T	T	T	T	T	T	T	F
	$\text{InProgressSimulation} == \text{true}$	F	T	T	T	T	T	F	T	T
Actions	Impossible	X						X		
	Check Radius				X				X	
	Check Mass					X				X
	Check Initial Speed		X							
	Check External Force			X						
	Output Position						X			