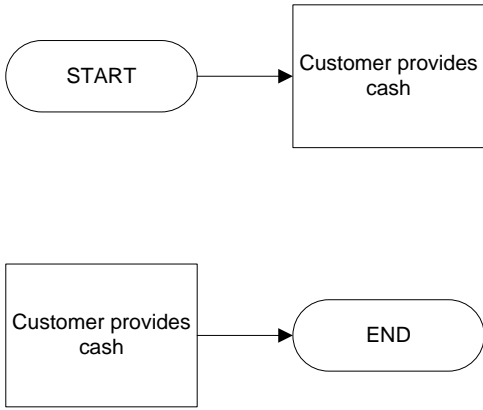
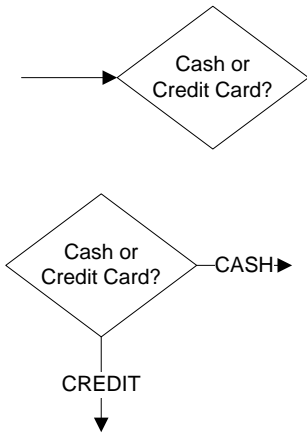
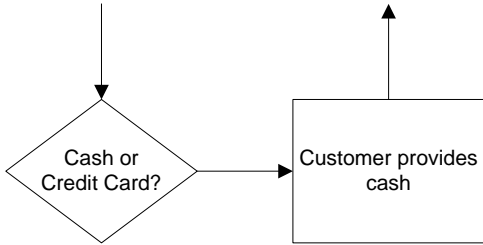
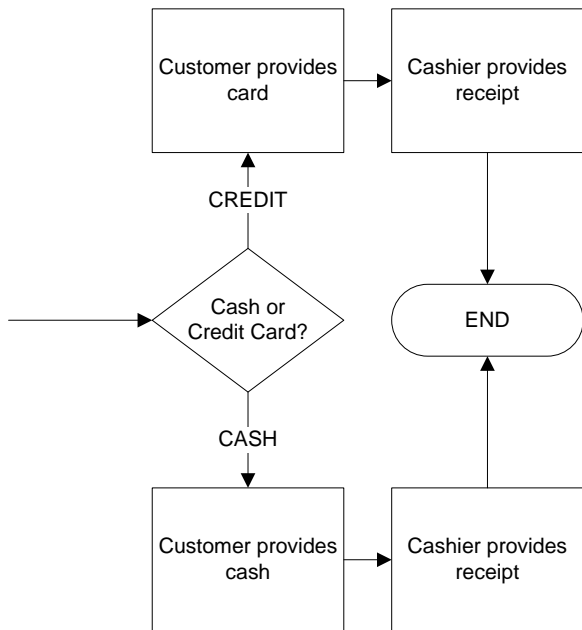


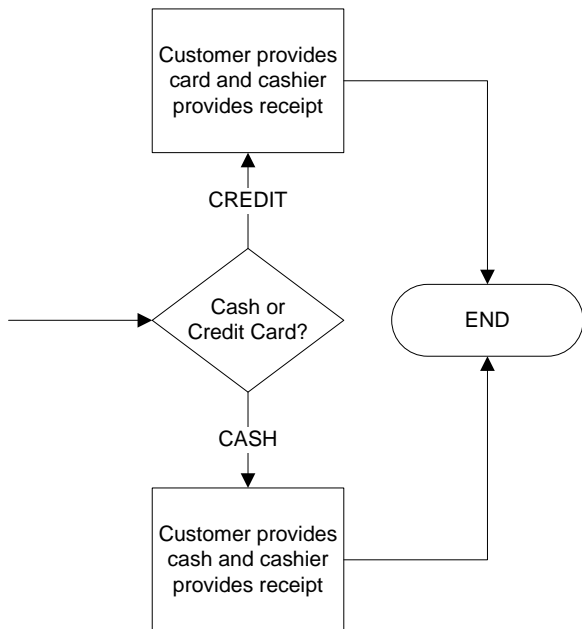
COMMON FLOWCHART DRAWING MISTAKES

by Duke Hutchings (<http://facstaff.elon.edu/dhutchings/>)

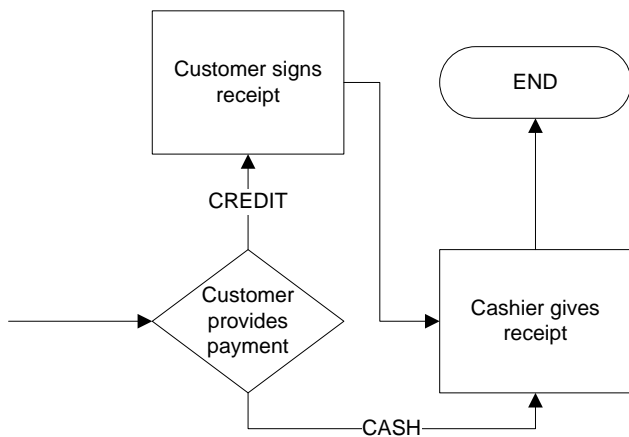
Sample Drawing Mistake	Problem(s) and Remedy
	<p>Process boxes must have at least one arrow out. Process boxes are not allowed to be the last step of any branch in a process diagram. Remedy: Connect the process box to another shape (another process box, a decision diamond, or a reference circle or pentagon). If the process box is the very last step of the process, then connect it to a terminator (see below).</p> <p>Process boxes must have at least one arrow in. Process boxes are not allowed to be the first step of an overall process or process branch. Remedy: Connect another shape to the process box (such as another process box, a decision diamond, or a reference circle or pentagon). If the process box is the very first step of the process, then connect a terminator to it (see above).</p>
<p>NOTE: From this point forward, a number of shapes will contain arrows in that do not originate from another shape, and will have arrows out that do not point to another shape. Strictly speaking, this is a violation of design guidelines. However this visual approach is taken to simplify the drawings and highlight the critical problems. On real diagrams, every arrow must start at a shape and end at another shape.</p>	
	<p>Decision diamonds must have at least two arrows out. Decision diamonds are not allowed to be the last step of any branch in a process diagram. Remedy: Connect the decision diamond to two or more other shapes and label each arrow out.</p> <p>Decision diamonds must have at least one arrow in. Decision diamonds are not allowed to be the first step of any branch in a process diagram. Remedy: Connect some other shape to the decision diamond.</p>
	<p>Problem #1: Decision diamonds must have at least two arrows out. If only one branch is possible from a diamond, then it is not a decision. Remedy: change the diamond to a process box OR draw the other branch(es) of the decision.</p> <p>Problem #2: Arrows leaving decision diamonds must contain a distinct label.</p>



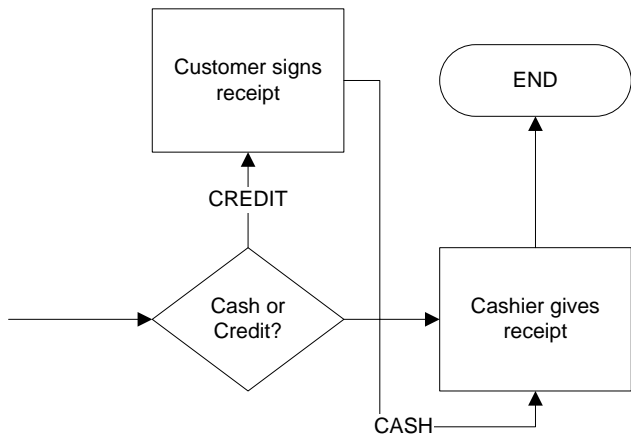
A process diagram cannot have two process boxes with the same label (describing the same action). **Remedy:** Draw only one box and have two arrows coming into it.



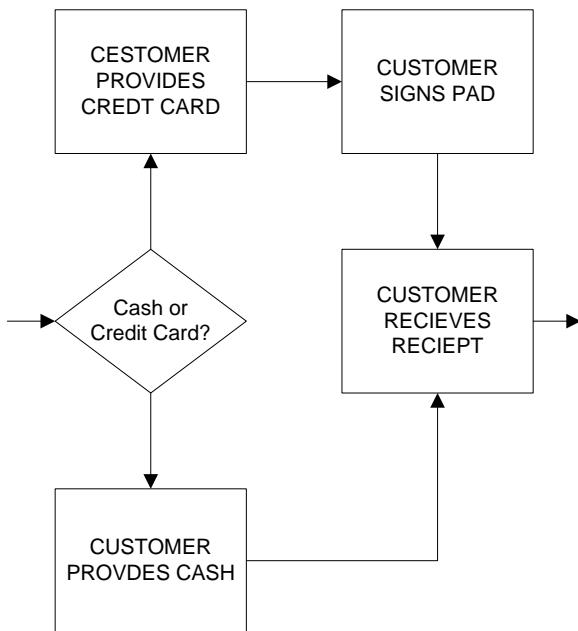
Process boxes cannot contain multiple tasks, especially when performed by different individuals. **Remedy:** split into two process boxes.



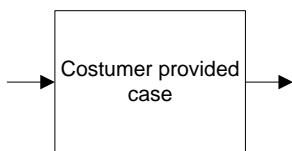
Decision diamonds cannot contain actions. **Remedy:** take out action and place into a process box. If a decision remains to be made, form the decision as question.



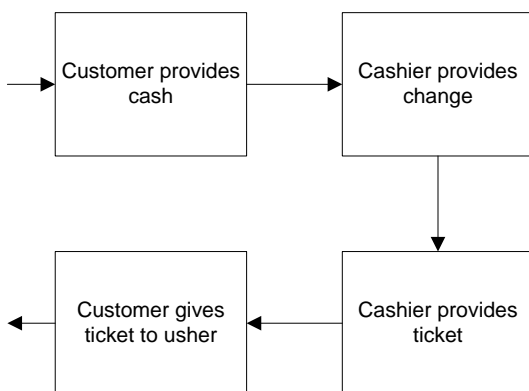
Lines cross or appear to cross. **Remedy:** adjust shapes or lines to remove crossings or appearances of crossings.



Spell-checker ignores words in all capital letters. Many words are misspelled in this diagram. **Remedy:** Avoid all capital letters except for the terminators.



Using a spell-checker is not enough to ensure that words are correctly typed. All words in this diagram are mis-typed. **Remedy:** Proofread your diagrams as you would proofread an essay or other document.



Time flows in opposing directions. First, flow is left-to-right. Then, flow is right-to-left. A change in flow is allowed **only** when there is a waiting portion or a process or when steps of a process require repetition. **Remedy:** Use a reference shape to continue time flow on another section of the page or a completely new page.