

Task Analysis:

Algorithm:

1. Obtain the flags for each class in the program(Incase, a class has a super class, the super's flags, if any, are included in the list of flags for the class)
2. Create a new flagstate for the StartupObject class with the initialstate flag set to true. Append this flagstate to the queue, QMAIN
3. Pop the head of QMAIN and use this flagstate FS to evaluate which task triggers on this.
4. Iterate through the list of tasks using FS.
5. If a task is triggered, add FS to the ADJLIST for that particular class. Before adding, ensure that the flagstate doesn't already exist in the ADJLIST. Keep track of the temp (as TEMP) whose flags form the triggering flagstate.
6. Search through the FFANS in this task:
 - a. For NewObject node,
 - i. If the new object is of a class which has only externs, create all possible runtime states for the class; if not already in the ADJLIST for this class and in QMAIN, add each state to the ADJLIST and QMAIN.
 - ii. If the new object is of a class which has both types of flags, create possible runtime states from the newly created flagstate. Append the newly created states to QMAIN and ADJLIST for this class after ensuring that the states don't already exist.
 - iii. If new object is of a class which has no externs, then create the new flagstate and append to QMAIN and ADJLIST ensuring that the states don't already exist.
 - b. For the task exit node, apply the flag changes to the tempflag pairs corresponding to TEMP and create the new flagstate. Add this state alongwith the task as an Edge to FS in the ADJLIST.
 - i. If the class has no external flags, append the new flagstate to QMAIN ensuring that it doesn't already exist.
 - ii. If the class has both types of flags, create the possible runtime states from the base state obtained in 6b; Also add the Runtime edges to the base state in ADJLIST. Append the states to QMAIN ensuring that they are not there already.
 - c. For the PRE node, throw an error stating that this type of node isn't supported anymore in Bristlecone.
7. Repeat steps 3-6 until QMAIN is empty.