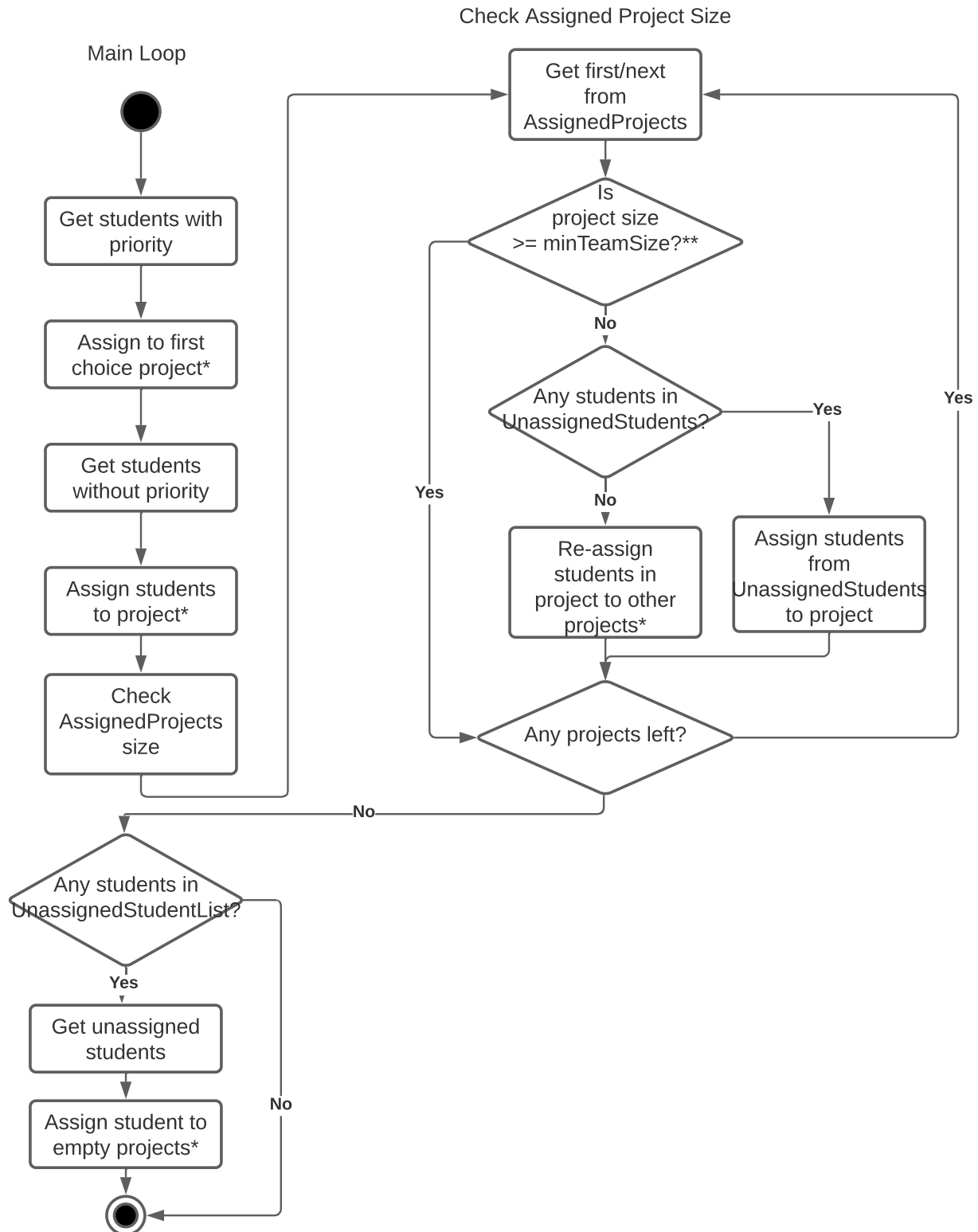# Assignment Algorithm
Capstone Colander

Zoë DeFreitas, 9-2020
- To do: add handling to increase maxTeamSize when no more projects left to assign students to
- To do: handle case when processing UnassignedStudents and no more projects left to assign (conflicting use of UnassignedStudents in algorithm)
- UnassignedStudents is populated by the students who cannot fit in any of their top choice projects during the student assignment loop
- AssignedProjects is a list of all projects that have been assigned students, with the number of students

Check Assigned Project Size

Main Loop

* see Assign Student Loop diagram
** maxTeamSize handled in Assign Student Loop diagram
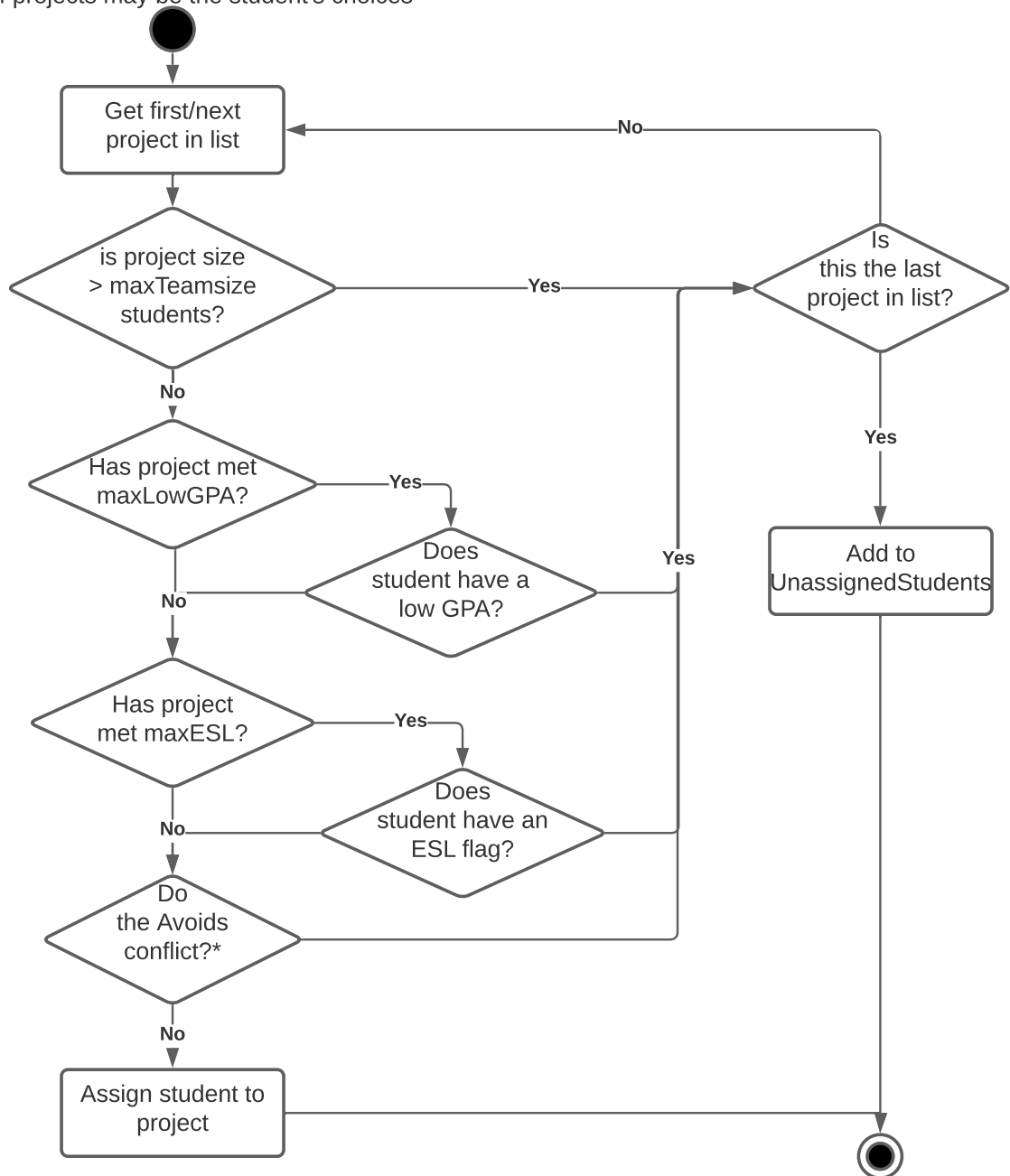
Assign Student Loop
Capstone Colander

Zoë DeFreitas, 9-2020
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Assign Student Loop:
- Input: list of projects and a student to assign
- List of projects may be the student's choices

Get first/next project in list

is project size > maxTeamsize students?

Is this the last project in list?

Has project met maxLowGPA?

Does student have a low GPA?

Add to UnassignedStudents

Has project met maxESL?

Does student have an ESL flag?

Do the Avoids conflict?*

Assign student to project

* Avoid conflict function will check the student's Avoids and any Avoids present in the team