

CSE-404: Artificial Intelligence Sessional
Task – 0: Missionaries and cannibals problem
(State Representation and Mapping)

Problem Statement:

Quote from Wikipedia,

“In the missionaries and cannibals problem, three missionaries and three cannibals must cross a river using a boat which can carry at most two people, under the constraint that, for both banks, if there are missionaries present on the bank, they cannot be outnumbered by cannibals (if they were, the cannibals would eat the missionaries). The boat cannot cross the river by itself with no people on board.”

You are required to write a program that is able to solve the puzzle and show the necessary steps to reach the solution. **Use the outline provided in the sessional class.**

Marks Distribution:

Submission	State class design	generateNextState()	isIllegalState()	BFS	+ UI (Bonus)	Total
10	20	25	25	20	20	(100+20)

Submission:

1. Put all necessary file in a single Folder. Name it: cse404<SectionA1/B1/A2/B2>_task0_<Your Roll Number>
2. Put the folder in a zip file. Name it the same as that of folder.
3. Email the zip file in this email: submission.cse.mist@gmail.com . The subject of the email must be same as the name of your folder.
4. **Deadline: 25 February, 2018 11:59PM.**