Programming Assignment #3

Due Date: 14th October, 2022

Total Marks: 30

1. Implement Josephus Problem using list in PYTHON. Let *n* be the number of persons standing in a circle facing the centre, let *k* be a skip number agreed upon in advance and let A be the person who begins the process. On each iteration, *x* will kill k^{th} person on the left, where *x* begins with *A* and is reset to be the person on the left of the person killed each time. For example, if *n* =10 (*A*, *B*, *C*, *D*, *E*, *F*, *G*, *H*, *I*, *J*) and *k*=3, then *A* kills *D*, *E* kills *H*, *I* kills *B*, *C* kills *G*, etc. Your program will accept *n* and *k* as input from the user. Output the order of execution till the program terminates.

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2. Write a PYTHON program to solve the problem of 8-puzzle of arranging tiles marked from 1 to 8 in a 3×3 board with one empty tile from initial configuration to goal configuration if they are reachable displaying the sequence of moves.

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