FMSP ASSESSMENT

Exam No: Y8159936

Question 2:**The frogs-on-a-log puzzle**

What is the correct final state?
Answer:

The correct final state will be as follows

Final State:

M	M	M		F	F	F

Males ={1, 2, 3}
Empty={4}
Females={5,6,7}

Give at least one trace of operations and parameters that leads to this final state. How did you deduce this from your model using ProZ?

Initial State:

F	**F**	**F**		**M**	**M**	**M**

Operations and Parameters:

Move 1: {4,5}-Move_Left

F	**F**	**F**	**M**		**M**	**M**

Move 2: {5,3}-Move_Right

F	**F**		**M**	**F**	**M**	**M**

Move 3: {3,2}-Move_Right

F		**F**	**M**	**F**	**M**	**M**

Move 4: {2,4}-Move_Left

F	**M**	**F**		**F**	**M**	**M**

Move 5: {4,6}-Move_Left

F	**M**	**F**	**M**	**F**		**M**

Move 6: {6,7}-Move_Left

F	**M**	**F**	**M**	**F**	**M**	

Move 7: {7,5}-Move_Right

F	**M**	**F**	**M**		**M**	**F**

Move 8: {5,3}-Move_Right

F	**M**		**M**	**F**	**M**	**F**

Move 9: {3,1}-Move_Right

	M	**F**	**M**	**F**	**M**	**F**

Move 10: {1,2}-Move_Left

M		**F**	**M**	**F**	**M**	**F**

Move 11: {2,4}-Move_Left

M	**M**	**F**		**F**	**M**	**F**

Move 12: {4,6}-Move_Left

M	**M**	**F**	**M**	**F**		**F**

Move 13: {6,5}-Move_Right

M	**M**	**F**	**M**		**F**	**F**

Move 14: {5,3}-Move_Left

M	**M**		**M**	**F**	**F**	**F**

Move 15: {3,4}-Move_Left

M	**M**	**M**		**F**	**F**	**F**

Final State [Males {1,2,3}, Empty {4}, Females {5,6,7}

M	**M**	**M**		**F**	**F**	**F**

I deduce to obtain by using smaller constrains at first on ProZ and then with the help of Statespace provided that the moves are correct in accordance to the rules of the game and further I carried out by adding few more constrains and checked it in ProZ and the moves were correct as of how I had solved manually, implemented them in ProZ and got this Final State.