```python
import sys

class Farmer:
    def __str__(self):
        return "Farmer"

class Sheep:
    def __str__(self):
        return "Sheep"

class Cabbage:
    def __str__(self):
        return "Cabbage"

class Wolf:
    def __str__(self):
        return "Wolf"

print("Welcome to sheep, cabbage, and wolf problem. The goal is to take all 3 " +
      "to the other \nshore without the cabbage getting eaten by the sheep or the " +
      "sheep getting eaten by the wolf.")

def print_state(farmer_on_shoreB, sheep_on_shoreB, cabbage_on_shoreB, wolf_on_shoreB):
    print("\nPosition:")
    print("Shore A:", "-" if farmer_on_shoreB else Farmer(),
          "-" if sheep_on_shoreB else Sheep(),
          "-" if cabbage_on_shoreB else Cabbage(),
          "-" if wolf_on_shoreB else Wolf())
    print("Shore B:", Farmer() if farmer_on_shoreB else "-",
          Sheep() if sheep_on_shoreB else "-",
          Cabbage() if cabbage_on_shoreB else "-",
          Wolf() if wolf_on_shoreB else "-")


farmer_on_shoreB = sheep_on_shoreB = cabbage_on_shoreB = wolf_on_shoreB = False

# Predefined sequence of moves
moves = [('F', 'S'), ('F', 'C'), ('F', 'S'), ('F', 'W'), ('F', 'S'), ()]

for move in moves:
    print_state(farmer_on_shoreB, sheep_on_shoreB, cabbage_on_shoreB, wolf_on_shoreB)
    for choice in move:
        if choice == 'S':
            sheep_on_shoreB = not sheep_on_shoreB
            farmer_on_shoreB = sheep_on_shoreB
        elif choice == 'C':
            cabbage_on_shoreB = not cabbage_on_shoreB
            farmer_on_shoreB = cabbage_on_shoreB
        elif choice == 'W':
            wolf_on_shoreB = not wolf_on_shoreB
            farmer_on_shoreB = wolf_on_shoreB
        else:
            if (sheep_on_shoreB and cabbage_on_shoreB and not farmer_on_shoreB):
                sys.exit("Game Over! The sheep ate the cabbage!")
            elif (sheep_on_shoreB and wolf_on_shoreB and not farmer_on_shoreB):
                sys.exit("Game Over! The wolf ate the sheep!")

print("\nCongratulations! The passengers have successfully been transported.")
```

```
Welcome to sheep, cabbage, and wolf problem. The goal is to take all 3 to the other
shore without the cabbage getting eaten by the sheep or the sheep getting eaten by the wolf.

Position:
Shore A: Farmer Sheep Cabbage Wolf
Shore B: - - - -

Position:
Shore A: - - Cabbage Wolf
Shore B: Farmer Sheep - -

Position:
Shore A: - - - Wolf
Shore B: Farmer Sheep Cabbage -

Position:
Shore A: Farmer Sheep - Wolf
Shore B: - - Cabbage -

Position:
Shore A: - Sheep - -
Shore B: Farmer - Cabbage Wolf

Position:
```

```
Shore A: - - - -
Shore B: Farmer Sheep Cabbage Wolf

Congratulations! The passengers have successfully been transported.
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link: https://colab.research.google.com/drive/15dBLm1Y2GGECkHacbAWttBOcSYwUE_-Y?usp=sharing