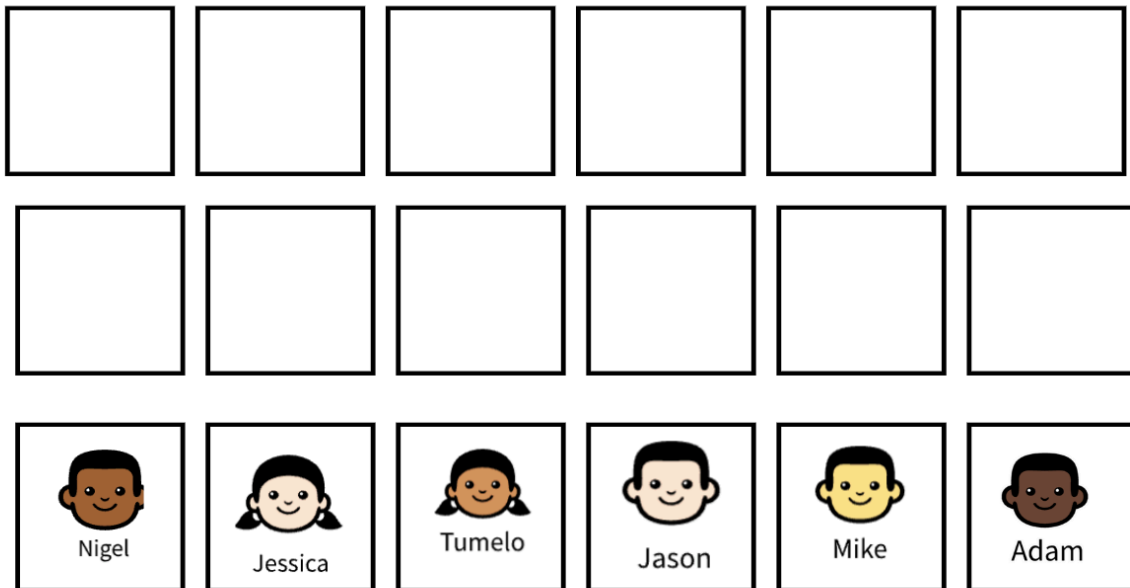


Data Structures

Class Test Memo (30 marks)

Exercise 1:

Given 3 Stacks, get all individuals in alphabetic order



Move Nigel from Stack A to Stack B.

Stack A: Jessica, Tumelo, Jason, Mike, Adam

Stack B: Nigel

Stack C: Empty

Move Jessica from Stack A to Stack B.

Stack A: Tumelo, Jason, Mike, Adam

Stack B: Jessica, Nigel

Stack C: Empty

Move Tumelo from Stack A to Stack B.

Stack A: Jason, Mike, Adam

Stack B: Tumelo, Jessica, Nigel

Stack C: Empty

Move Jason from Stack A to Stack B.

Stack A: Mike, Adam

Stack B: Jason, Tumelo, Jessica, Nigel

Stack C: Empty

Move Mike from Stack A to Stack B.

Stack A: Adam

Stack B: Mike, Jason, Tumelo, Jessica, Nigel

Stack C: Empty

Move Adam from Stack A to Stack B.

Stack A: Empty

Stack B: Adam, Mike, Jason, Tumelo, Jessica, Nigel

Stack C: Empty

Move Adam from Stack B to Stack C.

Stack A: Empty

Stack B: Mike, Jason, Tumelo, Jessica, Nigel

Stack C: Adam

Move Jason from Stack B to Stack C (since Jason comes next alphabetically).

Stack A: Empty

Stack B: Mike, Tumelo, Jessica, Nigel

Stack C: Jason, Adam

Move Jessica from Stack B to Stack C.

Stack A: Empty

Stack B: Mike, Tumelo, Nigel

Stack C: Jessica, Jason, Adam

Move Mike from Stack B to Stack C.

Stack A: Empty

Stack B: Tumelo, Nigel

Stack C: Mike, Jessica, Jason, Adam

Move Nigel from Stack B to Stack C.

Stack A: Empty

Stack B: Tumelo

Stack C: Nigel, Mike, Jessica, Jason, Adam

Move Tumelo from Stack B to Stack C.

Stack A: Empty

Stack B: Empty

Stack C: Tumelo, Nigel, Mike, Jessica, Jason, Adam

Move Tumelo from Stack C to Stack A.

Stack A: Tumelo

Stack B: Empty

Stack C: Nigel, Mike, Jessica, Jason, Adam

Move Nigel from Stack C to Stack A.

Stack A: Nigel, Tumelo

Stack B: Empty

Stack C: Mike, Jessica, Jason, Adam

Move Mike from Stack C to Stack A.

Stack A: Mike, Nigel, Tumelo

Stack B: Empty

Stack C: Jessica, Jason, Adam

Move Jessica from Stack C to Stack A.

Stack A: Jessica, Mike, Nigel, Tumelo

Stack B: Empty

Stack C: Jason, Adam

Move Jason from Stack C to Stack A.

Stack A: Jason, Jessica, Mike, Nigel, Tumelo

Stack B: Empty

Stack C: Adam

Move Adam from Stack C to Stack A.

Stack A: Adam, Jason, Jessica, Mike, Nigel, Tumelo

Stack B: Empty

Stack C: Empty

Final Alphabetical Order in Stack A:

Stack A: Adam, Jason, Jessica, Mike, Nigel, Tumelo

Stack B: Empty

Stack C: Empty