Practical 2

Q4. Implementing Queue using two stacks.

Enqueue method:

While s1 is not empty

Move elements from s1 to s2

Then push passed element to s1

While s2 is not empty

Move elements. Back from s2 to s1

(A stack can only access one elements at the top of the stack so we have to take all elements out of one stack and place it into another while we push our elements to our now empty stack s1, when this is done we can push all the elements back onto stack s1 from s2 on top on our elements which now is at the very bottom of the stack(start))

Dequeue method:

If s1 is empty return null

Assign top element of s1 to E element

Pop the element from s1

Return the assigned element

(This simply pops the top element of the stack and then return that element)

Q5. Implementing method which reverses stack using additional stack

While s1 is not empty

Pop element from s1

Push that element onto s2

(This simple algorithm just pops values from one stack and pops them in another stack and so reversing the order of the stack)