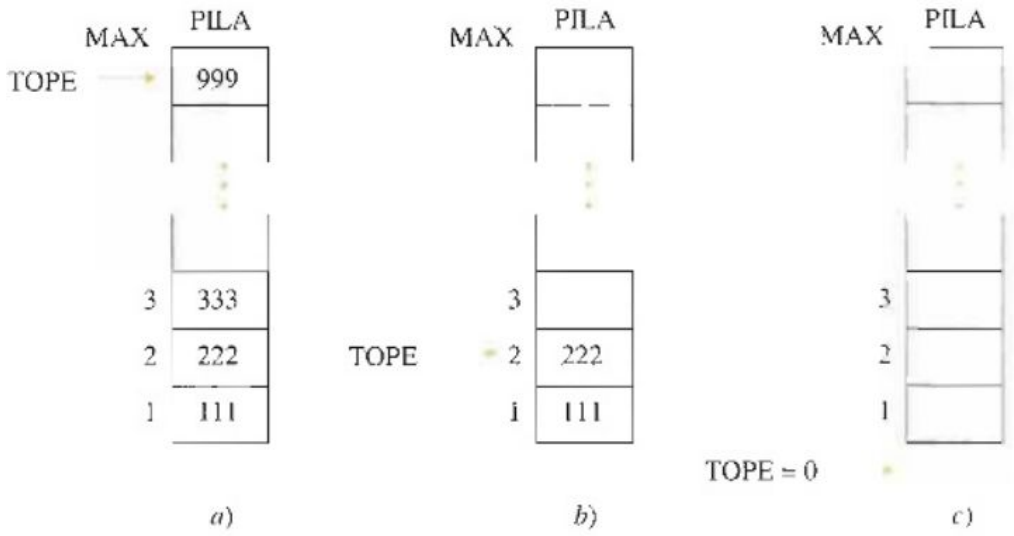
Tarea 8
Renteria Magana Rayni Damian
Representación en memoria de las pilas
Al utilizar arreglos para implementar pilas se tiene la limitación de que se debe reservar el espacio en memoria con anticipación. Una vez dado un máximo de capacidad a la pila no es posible insertar un número de elementos mayor que el máximo establecido. Si esto ocurre, en otras palabras si la pila está llena y se intenta insertar un nuevo elemento, se producirá un error conocido como desbordamiento–
overflow.



The push operation is used to insert an element into the stack. The new element is added at the topmost position of the stack. However, before inserting the value, we must first check if TOP=MAX-1, because if that is the case, then the stack is full and no more insertions can be done. If an attempt is made to insert a value in a stack that is already full, an OVERFLOW message is printed.

The pop operation is used to delete the topmost element from the stack. However, before deleting the value, we must first check if TOP=NULL because if that is the case, then it means the stack is empty and no more deletions can be done. If an attempt is made to delete a value from a stack that is already empty, an UNDERFLOW message is printed.

Peek is an operation that returns the value of the topmost element of the stack without deleting it from the stack.

Referencias

Aguilar, L. J., & Martínez, I. Z. (2002). *Estructura de datos: Algoritmos, abstración y objetos*. McGraw-Hill/interamericana.

Thareja, R. (2011). *Data and file structures using C: For Gujarat Technological University*. Oxford University Press.