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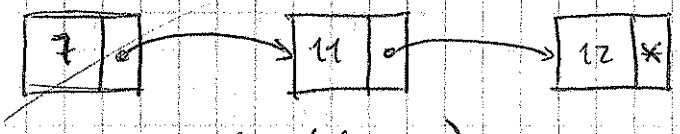
Stack - LIFO
- inserircabeca → push
- removercabeca → pop

Queue - FIFO
- enqueue - insere no fim
- dequeue - remover do início

```
typedef struct sLInt
 {int valor;
  struct sLInt *seg;
 } *LInt ,NLInt;

LInt removercabec (LInt, l)
 {
   LInt aux;
   if (!h)
     return h;
   else
     {
       aux = l->seg;
       free(l);
       return aux;
     }
 }

LInt inserirfim (LInt l, int n)
{
   LInt aux;
   if (!h)
   {
    aux = (LInt) malloc (sizeof(NLInt));
    aux->valor = n;
    aux->seg = l;
    return aux;
   }
   else
   {
    l->seg = inserirfim (l->seg,n);
    return l;
   }
}
```



$l_1 = insertfim(l_1, 15)$

```
int listlen (LInt l)
{
  return !l ? 0 : 1 + listlen (l->seg);
}

int listlenit (LInt l)
{
  int res = 0;
  while(l)
  {
    res++;
    aux = aux->seg;
  }
  return res;
}

LInt getNth (LInt l, int pos) {
  if (!pos)
    return l;
  else
    return getNth (l->seg, pos-1);

LInt insertNth (LInt l, int n, int pos)
{ LInt aux;
  if(!l || !pos)
  {
    aux = ... malloc ...;
    aux -> valor = n;
    aux -> seg = l;
    return aux;
  }
  else
  {
    l->seg = insertNth (l->seg, n, pos-1);
    return l;
  }
}
```

```
List append (List l, List m)
{
  if (!l)
    return m;
  else
    {
      l->seg = append(l->seg, m)
      return l;
    }
}
```