# DSA ass. 2.

## Theoretical part

$$MIN(j) = \begin{cases} 0 & \text{, if } j = 0 \\ \min\limits_{1 \le i \le j} \{e(i,j) + MIN(i-1)\} & \text{, otherwise} \end{cases}$$

```
SLS() {
  for j=1 to n
      for i=1 to j
          compute e(i,j) for p_i,...,p_j
  min[0]=0
  for j=1 to n
      min[j] = Min_{1≤i≤j} {e(i,j)+min[i-1]}
  return (min[n])
}
```

Time complexity of my pseudocode is $O(n^3)$.

1) Because of we have 2 loops and we need to compute all e(i,j) time compdexity is $O(n^3)$
2) We have one loop and reccurence relation → time complexity is $O(n^2)$
3) To summ up, we have time complexity $O(n^3)$