

REVERSE A STRING

① PROBLEM DOMAIN

WRITE A FUNCTION THAT WILL
REVERSE A STRING

- INPUT MUST BE A VALID STRING
- RETURN VALUE MUST BE A STRING
- CAN NOT ALTER THE ORIGINAL VALUE

② ALGORITHM

- TURN STRING INTO ARRAY
- LOOP OVER FROM BACK TO FRONT
- APPEND CHAR TO A NEW STRING
- RETURN NEW STRING

③ CODE

```
FUNCTION REVERSE(STR) {  
  LET REV = ''  
  LET ARR = STR.SPLIT('');  
  FOR(LET i = ARR.LENGTH - 1; i >= 0; i--) {  
    REV += ARR[i];  
  }  
  RETURN REV  
}
```

④ VISUALIZATION

```
REV = ""  
STR = "HELLO"  
ARR = ['H', 'E', 'L', 'L', 'O']  
  
LOOP  
i = 4, ARR[i] = O, REV = O  
i = 3, ARR[i] = L, REV = OL  
⋮  
i = 0, ARR[i] = H, REV = OLLEH  
FOR IS DONE
```