```
# PROJECT 02: ENCODE TEXT AS IMAGE
# F04: REPLACE CHARACTERS
______
f04 replace characters <- function(mat CWM, df ref replace) {</pre>
 N <- nrow(mat CWM)
 mat RWM <- matrix("", nrow = N, ncol = N)</pre>
 for(i in 1:N) {
   for(j in 1:N) {
    val_char <- mat_CWM[i, j]</pre>
     for(k in 1:nrow(df ref replace)) {
      test val <- as.character(df ref replace[k, 2])</pre>
       if(val_char == test_val) {
        val replace <- as.character(df ref replace[k, 4])</pre>
        break
      }
      else {
        val replace <- val char
     mat RWM[i, j] <- val replace</pre>
 }
 return (mat RWM)
______
# mat RWM <- f04 replace characters(mat CWM, df ref replace)</pre>
# rm(f04 replace characters)
```