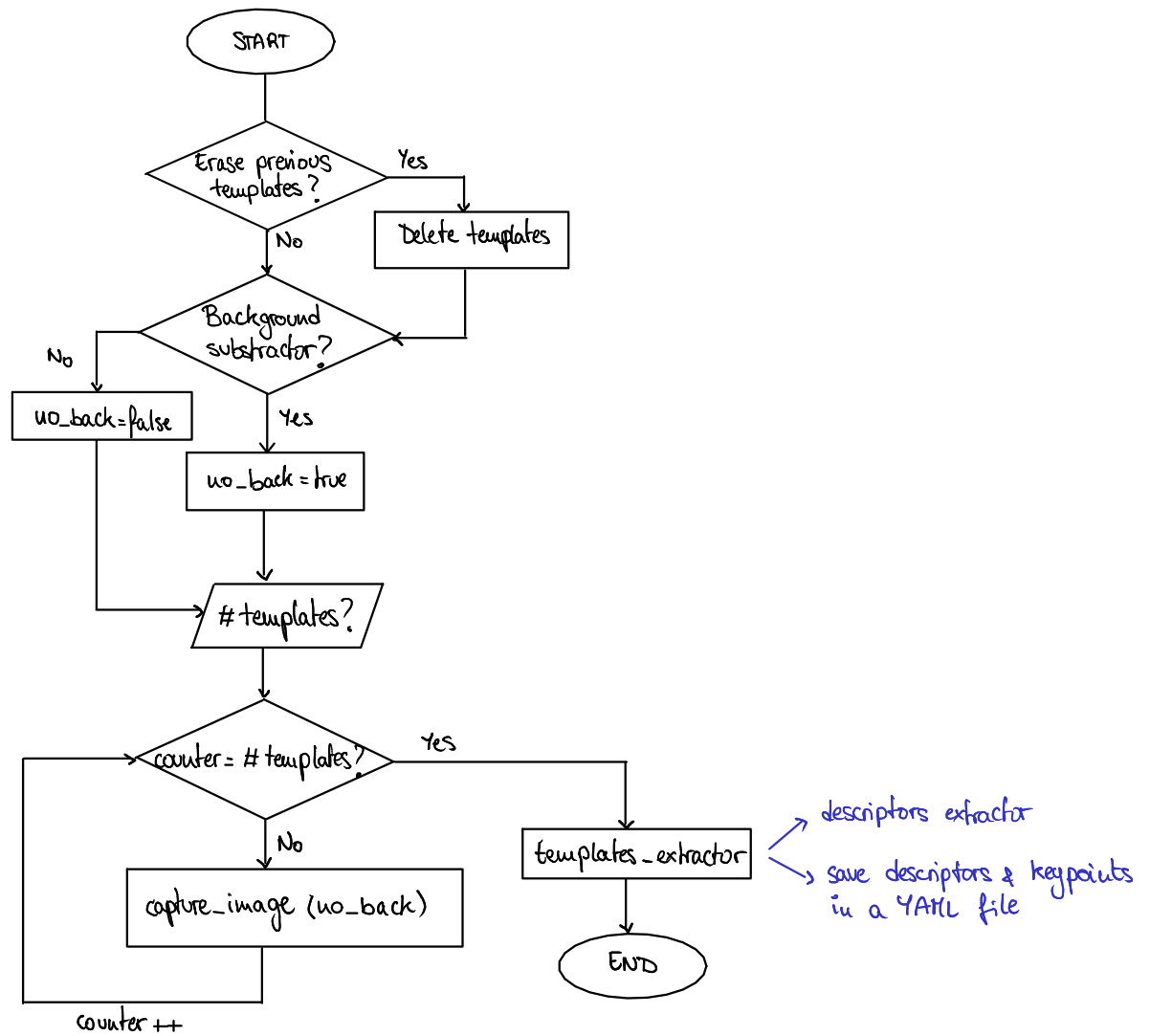


# DEMO 1

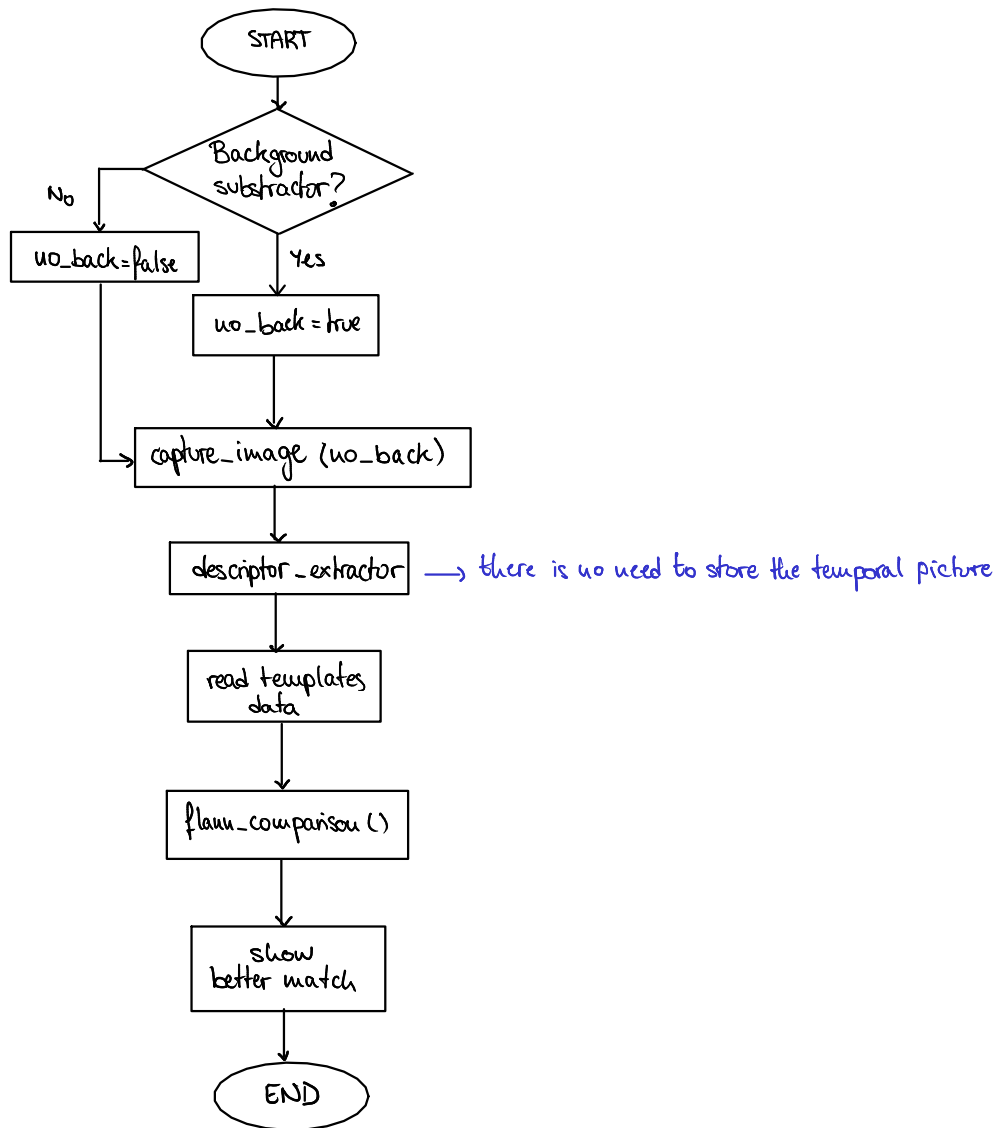
## 1. FLOWCHARTS

### PROGRAMS :

#### 1.1 TEMPLATES

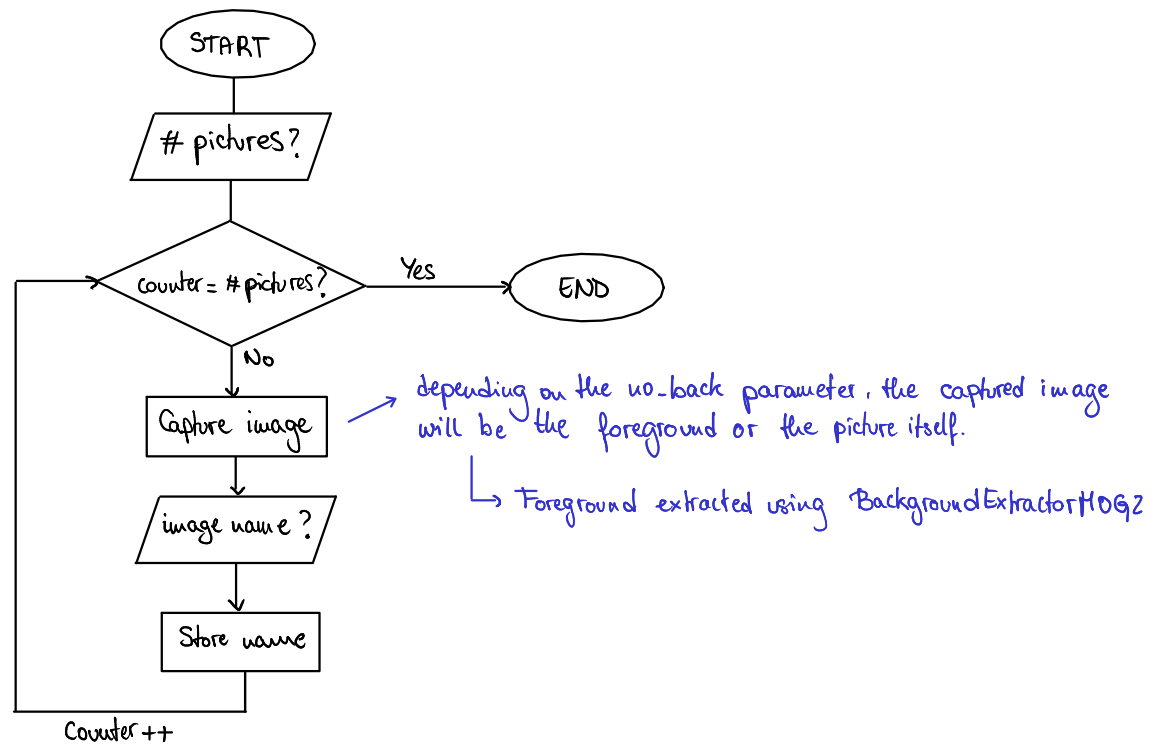


## 1.2 STATIC MATCHING



## Functions

### 1.3 CAPTURE\_IMAGE :

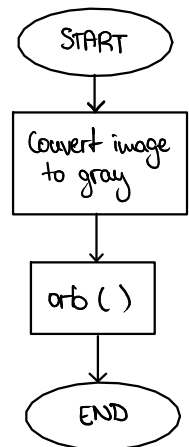


### 1.4 DESCRIPTORS EXTRACTOR :

→ Algorithm used → ORB: Descriptor based on BRIEF but rotation invariant & resistant to noise.

#### → KEYPOINTS

- Point feature found by any keypoint detectors.
- 2D position
- Scale (oc to the  $\phi$  of the neighborhood that needs to be taken into account)
- The keyp. neighborhood is analyzed to build the DESCRIPTOR (feature vector)
- They can be matched



### 1.5 FLANN-BASED COMPARISON :

- Fast Approximate Nearest Neighbors
- After computing them → those with ↓ error are selected

→ Results stored in a vector <DMatch> → select the best results using parameter distance (distance between descriptors).

### 1.6 BACKGROUND SUBTRACTOR :

- It uses different background subtractors: StaticFrameDiff, FrameDiff, Weighted Moving Mean/Variance, EigenBackground...