# Lecture 5 exercise1 - Segmentation reproducibility test

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The objective is to check the reproducibility of the segmentation results. To evaluate the consistency between the mass masks generated by the mass\_segment function you can: 1) Run the segmentation algorithm twice for each mass lesion 2) Compute the Dice index between the two masks 3) Identify the mass example with less reproducible segmentation

#### 1) Run the segmentation algorithm twice for N mass lesions

```
% define the list of images to segment
% Run mass_segment twice for each mass and store the result in a (Si x Sj x 2 x N) numeric array
% Define the empty array where to store the (Si x Sj x 2 x N) masks.
% you can use the cat function to concatenate arrays in the 3rd and 4th
% dimensions.
%
% Check the size of Im_segmented_all
```

### 2) Compute the Dice index between the two masks

Use the dice function, i.e. similarity = dice(BW1, BW2)

## 3) Identify the mass example with less reproducible segmentation

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