## **Project summary**

No	Question	Answer	Details (if any)
1	Is the idea of your project novel? Has similar project been solved by others?	Yes	Our system pipeline is our own.
2	Did you collect and annotate new dataset?	Yes	70 image of Vietnamese documents. No labeling.
3	Which benchmark datasets did you use?	No	
4	Did you perform any pre-processing steps?	Yes	Corner detection Image alignment Deblurring Cleaning Deskewing
5	Did you use any image processing techniques?	Yes	Convolution Perspective transform Kmeans segmentation Fourier transform Histogram equalization
6	Did you use different approaches to solve the problem?	Yes	Processing:  - Binarize page: Canny vs (Median filter + Kmeans) - Deskew: Hough transform vs Fourier transform Detection: CRAFT vs SWT Recognition: VGG vs MobileNetv3
7	Did you propose a new model or modify/improve any model to solve your problem?	Yes	Cleaning image
8	Did you train the model or just use a pre-trained model for inference?	pretrained	

9	Did you train the model from scratch or using pre-trained weights?	pretrained	
10	Did you implement the model? Or just clone from GitHub?	both	VGG & MobileNet: implement CRAFT & Transformer: clone
11	How many percentages of the project's code did you implement by yourself (without copying from other sources)?	70%	
12	Did you deploy the trained model on any platform (such as web, mobile app)?	No	Need to run bash command to start application
13	Did you implement any backend, DB?	No	
14	How about the contribution of each member?	Tran Quoc Lap: 25% Hoang Nguyen Minh Nhat: 25% Pham Thanh Hung: 25% Pham Thanh Truong: 25%	
15	How do you estimate your contribution?	Tran Quoc Lap: 25% Hoang Nguyen Minh Nhat: 25% Pham Thanh Hung: 25% Pham Thanh Truong: 25%	
16	Other question if any		
17			