Retrospective Document  
Sprint-4  
29.05.2016

Work & Test Progress

**Implementation Milestone 1) Optimizing the ML algorithms changing the parameters of the algorithms.**  
* Parameters of machine learning algorithms changed and tested.  
* J48 is decided to be implemented due to that it gives the best results.

**Implementation Milestone 2) Whole System Integration**  
* All the components of the system are got together.

**Implementation Milestone 3) Trying out different algorithms and finding the best categorization algorithm**  
* Categories reordered into nested category structure.

* New nested version has two levels, related categories grouped and casted into 29 categories that construct the first level, second level comprises of the children categories of the first level categories that is 125 in total.

* Distinct machine learning algorithms were tried to be implemented on distinct levels of our new category structure; however, J48 algorithm gave the best results in both levels, so J48 is decided to be implement every level in the category structure.

* Doc2Vec feature vectors were created into ARFF format and tested with Weka classifiers.

* The number of epochs is increased from 3 to 50.

* Sample size is of each category is increased from 30 to 100, missing categories are completed.

**Testing Milestone 1) Changing the parameters of the algorithms.**  
* Changing parameters doesn’t make a great difference.

**Testing Milestone 2) Whole System Integration**  
* Checking whether the system works completely.

**Testing Milestone 3) Trying out different algorithms**  
* Reordered category structure is tested.  
* Doc2Vec is tested with 3 epochs.  
* Doc2Vec is tested with 50 epochs.  
* Resized training set is tested.
Team Progress

<table>
<thead>
<tr>
<th>Name</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Onur Ozan Yüksel</td>
<td>25%</td>
</tr>
<tr>
<td>Mert Başmacı</td>
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</tr>
<tr>
<td>İzzet Barış Öztürk</td>
<td>25%</td>
</tr>
<tr>
<td>Özge Dönmaz</td>
<td>25%</td>
</tr>
</tbody>
</table>

Note to assistant and to supervisor:
Make sure that the actual percentages match with the declared percentages and indicate this in your report if there is any discrepancy.

Left-overs (Backlog)

Next Sprint

Team Comments

*It was a nice semester. Thank you for all your efforts given to us.*
Assistant Evaluation

**Assistant’s (Team Leader’s) comments regarding to this completed sprint.**

Write down your comments if the team has not made satisfactory progress in this sprint.

Also indicate whether the team's report on their progress (i.e. the reported completion percentages in the retrospective document) are accurate.

This section should be filled in by Assistant (Team Leader)
Supervisor Evaluation

Supervisor’s (Team Leader’s) comments regarding to this completed sprint.

This section should be filled in by Supervisor