

Product Backlog

Short plan:

1. As a user I want translations to be grammatically correct.
2. As a user I want to have multiple translations of a text from English to Russian.
3. As a user I want to get them fast.
4. As a user I want all of the suggested translations to have the same semantic meaning.
5. As a customer I want the model to be lightweight, so it could be used on smartphones.
6. As a customer I want the solution to be universal, so it could be extended to other languages.
7. As a customer I want the model to have at least 70% accuracy, so the translations and paraphrases are correctly predicted.

US-01	Grammatical correctness
Description	As a User, I want translations to be grammatically correct to have correct translations
Acceptance criteria	<u>Given</u> text in English <u>When</u> sending it to the app <u>Then</u> show multiple grammatically correct translations
Risks	<ul style="list-style-type: none">• It is impossible to test everything => only some % of correctness can be guaranteed.• Complete correctness can be not feasible at all.
Priority (MoSCoW)	Must be done.
Estimation	3 weeks

US-02	Multiple translations
Description	As a User, I want to have multiple translations of a text from English to Russian to have multiple variants to choose from.
Acceptance criteria	<u>Given</u> text in English <u>When</u> sending it to the app <u>Then</u> show multiple translations
Risks	<ul style="list-style-type: none">• Some sentences are so clear, that they do not have another translation => need to state that.• While initial translation might be correct, paraphrases might be wrong and/or grammatically incorrect.
Priority (MoSCoW)	Must be done.

Estimation	2 weeks
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US-03	Speed
Description	As a User, I want to get multiple English-to-Russian translations fast to not wait too long .
Acceptance criteria	<u>Given</u> text in English <u>When</u> sending it to the app <u>Then</u> show multiple translations in 1-5 seconds
Risks	We may not be able to achieve that.
Priority (MoSCoW)	Could be done.
Estimation	1 week

US-04	Semantic meaning
Description	As a User, I want all of the suggested translations to have the same semantic meaning to be able to choose one that fits the context.
Acceptance criteria	<u>Given</u> text in English <u>When</u> sending it to the app <u>Then</u> show multiple translations with same semantic meaning
Risks	Some versions of translation may have wrong semantic meaning => need to filter that out.
Priority (MoSCoW)	Must be done.
Estimation	3 weeks

US-05	Lightweight model
Description	As a Customer I want the model to be lightweight, so it could be used on smartphones.
Acceptance criteria	<u>Given</u> dataset and the structure of the model <u>When</u> the model is trained using the dataset <u>Then</u> the size of the model is less than 500 Mb
Risks	The model may need large word embeddings for translations to be correct which will make the model heavier.
Priority (MoSCoW)	Could be done.

Estimation	1 week
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US-06	Universal model
Description	As a Customer I want the solution to be universal , so it could be extended to other languages .
Acceptance criteria	<u>Given</u> trained model <u>When</u> used on other languages <u>Then</u> correct results are given
Risks	Training universal model may result in lower accuracy for the main languages.
Priority (MoSCoW)	Would be done.
Estimation	3 weeks

US-07	Accuracy of the model
Description	As a Customer I want the model to have at least 70% accuracy , so the translations and paraphrases are correctly predicted .
Acceptance criteria	<u>Given</u> trained model <u>When</u> evaluated on test set <u>Then</u> shows at least 70% accuracy
Risks	The behaviour of the model is unpredictable and available computational resources may be not enough for achieving stated accuracy.
Priority (MoSCoW)	Could be done.
Estimation	3 weeks