

## Introduction

- It is easier to use existing service than creating new one.
- Problem is suitable service selection – it can be solved by recommendation.
- There are multiple approaches for recommendation of services. We focus on modern and still evolving approach using Context.

## Context

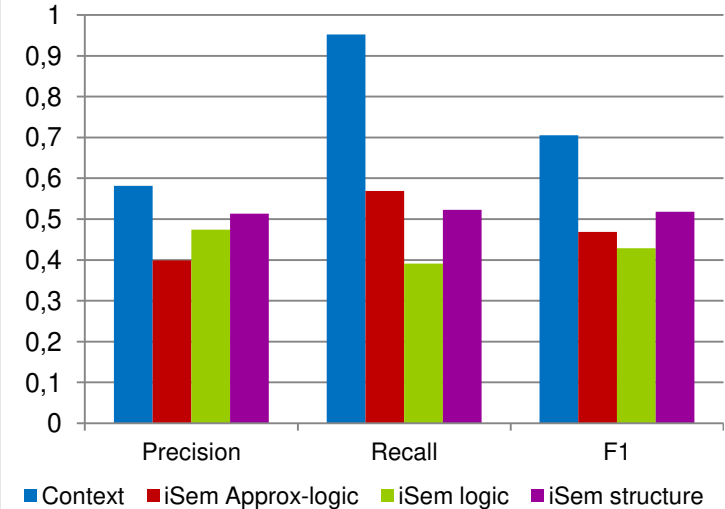
- Represents functional and non-functional attributes of object and includes Quality of Service attributes.
- Users and services have separate contexts and every context is unique for object it belongs to.
- It can be automatically modified for obtaining better results in future recommendations.

## Recommendation Method

- Request for service represents functional description of desired service.
- Recommendation is performed upon first assumption that contains services which at least partially fulfill user's request.
- Partial likelihoods are computed by calculating similarities:
  - Contextual – context of a user and context of a service,
  - Semantical –description of the service and request of the user,
  - Collaborative - context of a service and contexts of positively recommended services.
- **Weights** are assigned for each likelihood so user can specify importance of partial likelihoods for him.
- After calculation is performed, services are sorted and recommended.

## Comparison with other methods

Comparison results without previous data



## Contribution

- Usage of contextual information improved results.
- Hybrid approach has been evaluated as the best on in recommendation process.
- Using contextual information it is possible to overcome Cold-start problem.