Readme File

1. Files

1.1. Picture

Pictures for report or experiment results.

1.2. Code

1. Python file are included in “code” file.
2. “examples” file includes problems to be solved, which are represented as “xml” files.

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2. How to Run

2.1. Steps

Step1: under directory of code.
Step2: implement python file with instructions.

2.2. Instructions

2.2.1. Choice for < algorithm name >

1. **enum**: *enumeration* algorithm
2. **elim**: *variable elimination* algorithm
3. **rej**: *rejection sampling*
4. **wei**: *likelihood weighting*
5. **gib**: *Gibbs sampling*

2.2.2. Run alarm problem, wet grass problem or dog problem with exact inference algorithms.

```
$ python3 Exec.py <file> <query> <variable> <value>(...) <algorithm name>
```

Example:

```
$ python3 Exec.py ./examples/aima-alarm.xml B J true M true enum
```

2.2.3. Run alarm problem, wet grass problem or dog problem with approximate inference algorithms.

```
$ python3 Exec.py <sampling time> <file> <query> <variable> <value>(...)
<algorithm name>
```

Example:

```
$ python3 Exec.py 1000 ./examples/aima-alarm.xml B J true M true rej
```

2.2.4. Run alterable size tree problem with exact inference algorithms.

```
$ python3 Exec.py test <nodeNumber> <query> <varbale> <value>(...) <algor
ithm name>
```

Example:

```
$ python3 Exec.py test 10 1 2 true enum
```

2.2.4. Run alterable size tree problem with approximate inference algorithms.

```
$ python3 Exec.py <sampling number> test <nodeNumber> <query> <varbale> <
value>(...) <algorithm name>
```

Example:

```
$ python3 Exec.py 1000 test 10 1 2 true rej
```