Inferring Specifications from API Documents

Dejun Qian

```
01: ...
02: <param name="proc_name"> This name needs to be a valid identifier, which is no longer than 32 characters .....
</param>
03: ...
04: void DefineProperty(string prop_name)
```

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04: void DefineProperty(string prop_name)

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02: GetPropName(prop_name);

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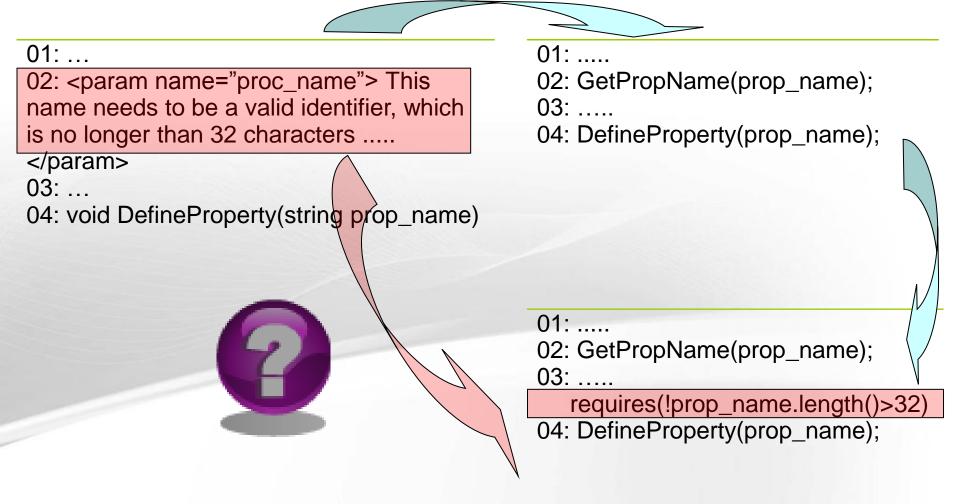
01:

02: GetPropName(prop_name);

03:

requires(!prop_name.length()>32)

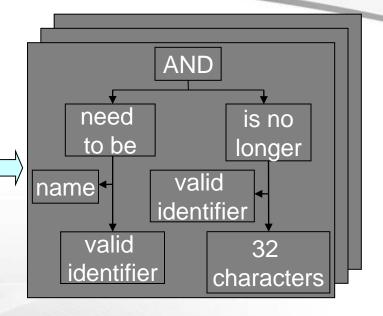
04: DefineProperty(prop_name);



Solution

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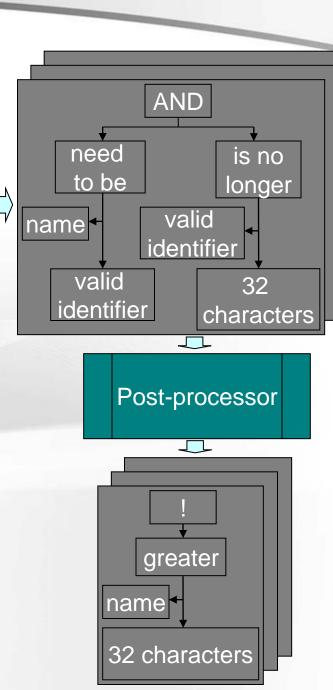
Text Analysis Engine



Solution

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Text Analysis Engine



Solution AND need is no to be longer This name needs to **Text Analysis** be a valid identifier, valid Engine name which is no longer identifier than 32 characters valid 32 identifier characters Post-processor greater **Code Contract** requires(Generator !prop_name.length()>32 name 32 characters

Conclusion

- experiment on C# Filesystem API and Facebook API
- over 2500 sentences
- 83.4% accuracy in inferring code specifications

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Questions!