

Assignment #3

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formal Methods

Submit to : Mam fatima

Question

Provide detail Composative Analysis of following Z-Specification Tool.

Formal method have been criticized for the limited availability of tools to supports the software engineers in writing the formal specification and in conducting proof. Z is the widely used formal specification language and it is base of Zermel set theory. It is used a mathematical notation that is similar to VDM and the visually striking schema calculus. Z is used for formal specification of software system and it was

Published as an
IOS Standard. There are several
Tools available to support the
engineers in writing Z-Specification.
There are widely selection of
tools available.

ZTC

The Community of Z was
(CZT) is an open source
Project that has developed a
suite of Z tools including
~~parser~~ parsers and type checker.

CadiZ

It is the set of
free software tools that checks
the syntactic and type
correctness of Z specification.
It support the interactive

Proofs of Conjunction

Z/EVES

It is the graphical user interface that allow Z-Specification to be entered edited and analysed in their typeset form and it support the analysis of specification. Z/EVES support almost the entire Z notation and interaction with the tools is via its GUI. It use in windows and its used in Linux and window and its used for commercial, academic and education purpose.

Question 2

Analysis of following VDM Tools

IFAD

The IFAD Toolbox is a support tool for the VDM-SL tool for the VDM-SL specification language and type checking on interpreter and debugger to execute and debug the specification and code generator to convert for VDM-SL to C++. It was originally developed by IFAD in Denmark, but they later sold the toolbox to CSK in Japan, and it was later renamed to VDM tools.

Overture Integrated Development

IDE is an open source

tool for VDM-SL Specification.
It covers three dialects.
of VDM. It was developed
by community of volunteer
on the eclipse platform.
The tool is intended to
be industrial strength supporting
in describing ~~abstract~~ abstract
model in Software development
