CONTENTS

I	Introdu	action 4
	I-A	Background and Motivation
	I-B	Problem Statement
	I-C	Research Questions
	I-D	Scope and Limitations
	I-E	Structure of the Thesis
II	Theore	tical Background
	II-A	Model-Driven Engineering
	II-B	Model transformation
	II-C	Eclipse Foundation
	II-D	Eclipse Modeling Framework (EMF)
	II-E	Henshin
	II-F	Graphical Language Server Platform (GLSP)
Ш	Dolotod	1 Worls
111	Related III-A	Work Scientific Literature
	III-A III-B	Existing Tools and Technologies
	III-B III-C	Comparison and Gaps
	III-C	Comparison and Gaps
IV	Requir	ements Analysis
	IV-A	Functional Requirements
	IV-B	Non-Functional Requirements
	IV-C	Stakeholders and Use Cases
V	System	Constraints
VI	System	Design and Architecture
	VI-A	High-Level Architecture
	VI-B	Component Design
	VI-C	Data Flow and Control Flow
	VI-D	Data Models and Structures
	VI-E	User Interface Design
VII		
	Imnlen	
A 111	_	nentation
VII	VII-A	nentation Development Process
V 11	VII-A VII-B	Development Process
VII	VII-A	Development Process
	VII-A VII-B VII-C VII-D	nentation Development Process Key Features and Functionality Tooling and Environment Code Examples
VIII	VII-A VII-B VII-C VII-D Testing	Development Process
	VII-A VII-B VII-C VII-D Testing VIII-A	Development Process Key Features and Functionality Tooling and Environment Code Examples and Evaluation Testing Strategy
	VII-A VII-B VII-C VII-D Testing VIII-A VIII-B	Development Process Key Features and Functionality Tooling and Environment Code Examples and Evaluation Testing Strategy Test Results and Coverage
	VII-A VII-B VII-C VII-D Testing VIII-A VIII-B VIII-C	Development Process Key Features and Functionality Tooling and Environment Code Examples and Evaluation Testing Strategy Test Results and Coverage Performance Evaluation
	VII-A VII-B VII-C VII-D Testing VIII-A VIII-B VIII-C VIII-D	nentation Development Process Key Features and Functionality Tooling and Environment Code Examples and Evaluation Testing Strategy Test Results and Coverage Performance Evaluation User Feedback
	VII-A VII-B VII-C VII-D Testing VIII-A VIII-B VIII-C	Development Process Key Features and Functionality Tooling and Environment Code Examples and Evaluation Testing Strategy Test Results and Coverage Performance Evaluation
	VII-A VII-B VII-C VII-D Testing VIII-A VIII-B VIII-C VIII-D	Development Process Key Features and Functionality Tooling and Environment Code Examples and Evaluation Testing Strategy Test Results and Coverage Performance Evaluation User Feedback Comparison with Requirements
VIII	VII-A VII-B VII-C VII-D Testing VIII-A VIII-B VIII-C VIII-D VIII-E	Development Process Key Features and Functionality Tooling and Environment Code Examples and Evaluation Testing Strategy Test Results and Coverage Performance Evaluation User Feedback Comparison with Requirements
VIII	VII-A VII-B VII-C VII-D Testing VIII-A VIII-B VIII-C VIII-D VIII-E Discuss	Development Process Key Features and Functionality Tooling and Environment Code Examples and Evaluation Testing Strategy Test Results and Coverage Performance Evaluation User Feedback Comparison with Requirements
VIII	VII-A VII-B VII-C VII-D Testing VIII-A VIII-B VIII-C VIII-D VIII-E Discuss IX-A IX-B	Development Process Key Features and Functionality Tooling and Environment Code Examples and Evaluation Testing Strategy Test Results and Coverage Performance Evaluation User Feedback Comparison with Requirements ition Interpretation of Results Challenges and Limitations
VIII	VII-A VII-B VII-C VII-D Testing VIII-A VIII-B VIII-C VIII-D VIII-E Discuss IX-A IX-B	Development Process Key Features and Functionality Tooling and Environment Code Examples and Evaluation Testing Strategy Test Results and Coverage Performance Evaluation User Feedback Comparison with Requirements ion Interpretation of Results Challenges and Limitations sion and Future Work
VIII	VII-A VII-B VII-C VII-D Testing VIII-A VIII-B VIII-C VIII-D VIII-E Discuss IX-A IX-B	Development Process Key Features and Functionality Tooling and Environment Code Examples and Evaluation Testing Strategy Test Results and Coverage Performance Evaluation User Feedback Comparison with Requirements ition Interpretation of Results Challenges and Limitations