

REFERENCES

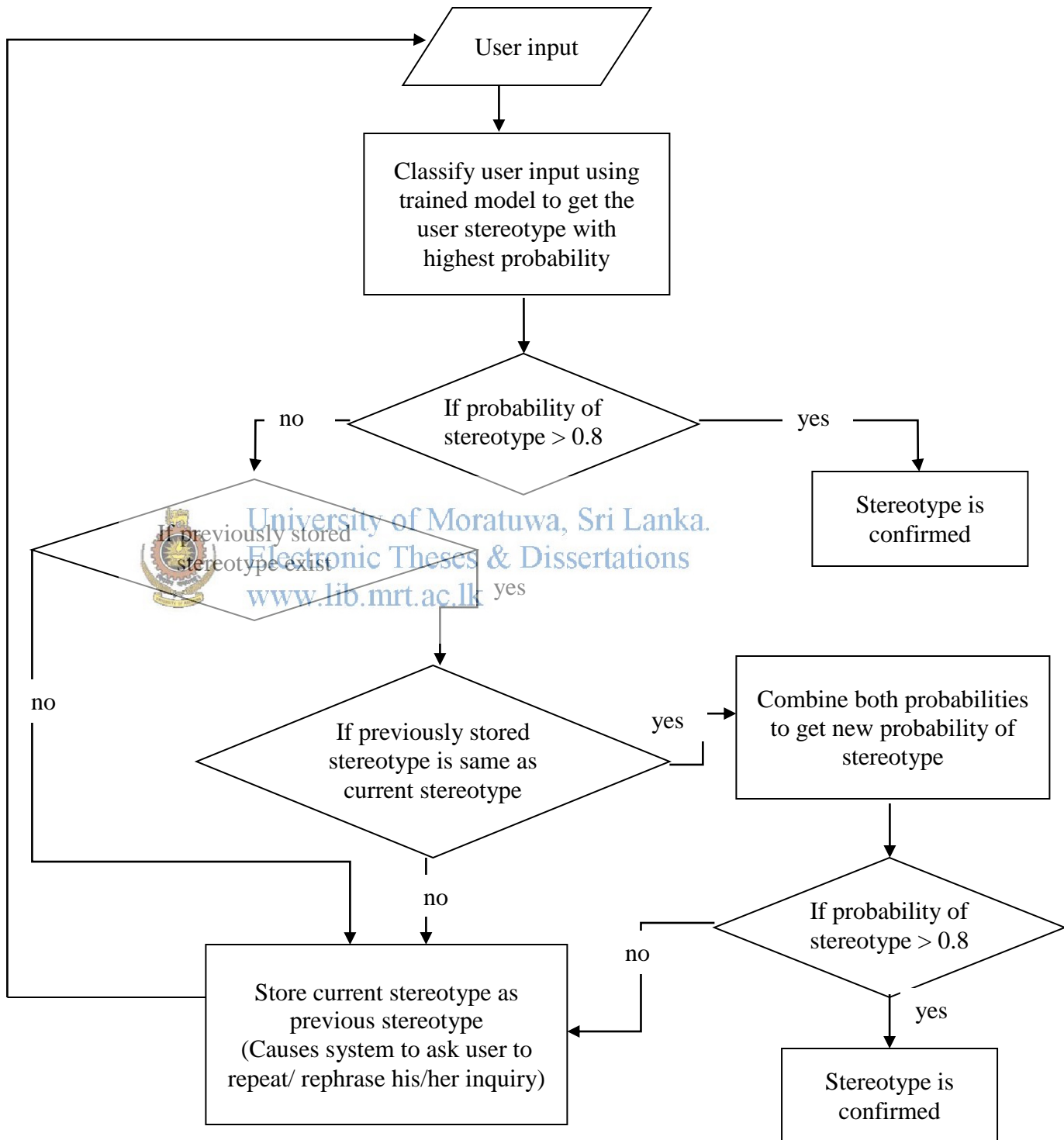
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APPENDICES

Appendix A



Appendix B

Dialogue Domain Specification for basic dialogue system

```
<?xmlversion="1.0"encoding="UTF-8"?>

<!-- domain for new policy taking --->
<domain>
  <initialstate>
    <variableid="current_question">
      <value>howHelp</value>
    </variable>
  </initialstate>

  <!-- Action selection -->
  <modeltrigger="current_question">
    <rule>
      <case>
        <effect>
          <setvar="a_m"value="Ask({current_question})"/>
        </effect>
      </case>
    </rule>
  </model>

  <modeltrigger="u_u">
    <!-- rule to identify user action -->
    <rule>
      <case>
        <condition>
          <ifvar="u_u"value="1.0"/>
        </condition>
        <effect>
          <setvar="a_u"value="conclude"/>
        </effect>
      </case>
      <case>
        <condition>
          <ifvar="current_question"value="howHelp"/>
          <or>
            <ifvar="u_u"value="for * son"relation="in"/>
            <ifvar="u_u"value="for * daughter"relation="in"/>
          </or>
        </condition>
        <effect>
          <setvar="a_u"value="wantPolicyForChild"/>
        </effect>
      </case>
      <case>
        <condition>
          <ifvar="current_question"value="howHelp"/>
          <or>
```

```

        <ifvar="u_u" value="want to take another *
        policy" relation="in"/>
        <ifvar="u_u" value="want to take * for myself" relation="in"/>
    </or>
</condition>
<effect>
    <setvar="a_u" value="wantPolicyForSelf"/>
</effect>
</case>
<case>
<condition>
<ifvar="current_question" value="howHelp"/>
<or>
    <ifvar="u_u" value="* friend* wants a *
    policy" relation="in"/>
    <ifvar="u_u" value="* relative* wants a *
    policy" relation="in"/>
</or>
</condition>
<effect>
    <setvar="a_u" value="wantPolicyForOther"/>
</effect>
</case>
<case>
<condition>
<ifvar="current_question" value="howHelp"/>
<or>
    <ifvar="u_u" value="about * policies" relation="in"/>
    <ifvar="u_u" value="what are * policies" relation="in"/>
</or>
</condition>
<effect>
    <setvar="a_u" value="wantPolicyInfoGeneral"/>
</effect>
</case>
<case>
<condition>
<ifvar="current_question" value="howHelp"/>
</condition>
<effect>
    <setvar="a_u" value="None"/>
</effect>
</case>
<case>
<condition>
<ifvar="current_question" value="answerGood"/>
<or>
    <ifvar="u_u" value="yes"/>
    <ifvar="u_u" value="ya" relation="in"/>
</or>
</condition>
<effect>

```



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```

        <setvar="a_u"value="conclude"/>
    </effect>
</case>
<case>
<condition>
<ifvar="current_question"value="answerGood"/>
<or>
        <ifvar="u_u"value="no"relation="in"/>
        <ifvar="u_u"value="nope"relation="in"/>
    </or>
</condition>
<effect>
        <setvar="a_u"value="startOver"/>
    </effect>
</case>
<case>
<condition>
<ifvar="current_question"value="answerGood"/>
</condition>
<effect>
        <setvar="a_u"value="None"/>
    </effect>
</case>
<case>
    <effect>
        <setvar="a_u"value="None"/>
    </effect>
</case>
</rule>
</model>

```



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```

<modeltrigger="a_u">
<!-- Rule to determine system action -->
<rule>
<case>
<condition>
<ifvar="a_u"value="wantPolicyForChild"/>
</condition>
<effect>
<setvar="a_m"value="givePolicyInfoChild"/>
</effect>
</case>
<case>
<condition>
<ifvar="a_u"value="wantPolicyForSelf"/>
</condition>
<effect>
<setvar="a_m"value="givePolicyInfoSelf"/>
</effect>
</case>
<case>
<condition>

```

```

<ifvar="a_u"value="wantPolicyForOther"/>
</condition>
<effect>
<setvar="a_m"value="givePolicyInfoOther"/>
</effect>
</case>
<case>
<condition>
<ifvar="a_u"value="wantPolicyInfoGeneral"/>
</condition>
<effect>
<setvar="a_m"value="givePolicyInfoGeneral"/>
</effect>
</case>
<case>
<condition>
<ifvar="a_u"value="conclude"/>
</condition>
<effect>
<setvar="a_m"value="conclude"/>
</effect>
</case>
<case>
<condition>
<ifvar="a_u"value="startOver"/>
</condition>
<effect>
<setvar="a_m"value="startOver"/>
</effect>
</case>
</rule>
</model>

<modeltrigger="a_m">
  <!-- Rule to change the current question when a given slot is confirmed -->
  <rule>
    <case>
      <conditionoperator="or">
        <ifvar="a_m"value="givePolicyInfoGeneral"/>
          <ifvar="a_m"value="givePolicyInfoChild"/>
          <ifvar="a_m"value="givePolicyInfoSelf"/>
          <ifvar="a_m"value="givePolicyInfoOther"/>
        </condition>
        <effect>
          <setvar="current_question"value="answerGood"/>
        </effect>
      </case>

```



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```

<case>
  <condition>
    <ifvar="a_m" value="startOver"/>
  </condition>
  <effect>
    <setvar="current_question" value="howHelp"/>
  </effect>
</case>
<case>
  <condition>
    <ifvar="a_m" value="conclude"/>
  </condition>
  <effect>
    <setvar="current_question" value="howHelp"/>
  </effect>
</case>
</rule>

<!-- basic NLG model -->
<rule>
  <case>
    <condition>
      <ifvar="a_m" value="Ask(howHelp)"/>
    </condition>
    <effectutil="I">
      <setvar="u_m" value="How may I help you (Enter 1 to
finish)"/>
    </effect>
  </case>
  <case>
    <condition>
      <ifvar="a_m" value="Ask(answerGood)"/>
    </condition>
    <effectutil="I">
      <setvar="u_m" value="Are you satisfied with above
information? "/>
    </effect>
  </case>
  <case>
    <condition>
      <ifvar="a_m" value="conclude"/>
    </condition>
    <effectutil="I">
      <setvar="u_m"
value="Thank you for contacting us. Goodbye!"/>
    </effect>
  </case>
  <case>
    <condition>
      <ifvar="a_m" value="askRepeat"/>
    </condition>
    <effectutil="I">

```



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```

        <setvar="u_m" value="Sorry, Could you please repeat?"/>
    </effect>
</case>
<case>
    <condition>
        <ifvar="a_m" value="givePolicyInfoChild"/>
    </condition>
    <effectutil="1">
        <setvar="u_m" value="Currently, we are providing 'Ran
        Kekulu', 'SubaPathum' and 'YowunSaviya' child insurance
        policies each designed for different age groups. They give
        maximum protection for children by including special health
        covers and other benefits. "/>
    </effect>
</case>
<case>
    <condition>
        <ifvar="a_m" value="givePolicyInfoSelf"/>
    </condition>
    <effectutil="1">
        <setvar="u_m" value="Currently, we have introduced
        'saubagya', 'arogya' and 'wardhana' life insurance policies
        that you can choose from. Each policy is designed to provide
        you with special benefits according to your requirements"/>
    </effect>
</case>
<case>
    <condition>
        <ifvar="a_m" value="givePolicyInfoOther"/>
    </condition>
    <effectutil="1">
        <setvar="u_m" value="There are three types of general life
        policies available."/>
    </effect>
</case>
<case>
    <condition>
        <ifvar="a_m" value="givePolicyInfoGeneral"/>
    </condition>
    <effectutil="1">
        <setvar="u_m" value="There are various types of life policies
        available."/>
    </effect>
</case>
</rule>
</model>
</domain>

```



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