Prob5.12.chart

Grammar

1 S' -> S

2 S -> aAd

3 S -> bBd

4 S -> aBm

5 S -> bAm

6 A -> c

7 B -> c

FSM done is class for an LR(1) parser. Chart below:

ACTION GOTO

a b c d m $ S' S A B

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0 |s2 |s3 | | | | | | 1 | |

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1 | | | | | |Acc| | | |

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2 | | |s6 | | | | | | 4 | 5

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3 | | |s9 | | | | | | 8 | 7

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4 | | | |s10| | | | | |

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5 | | | | |s11| | | | |

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6 | | | |r6 |r7 | | | | |

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7 | | | |s12| | | | | |

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8 | | | | |s13| | | | |

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9 | | | |r7 |r6 | | | | |

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10 | | | | | |r2 | | | |

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11 | | | | | |r4 | | | |

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12 | | | | | |r3 | | | |

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13 | | | | | |r5 | | | |

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Parse acd

$0 acd$ action s2

$0a2 cd$ action s6

$0a2c6 d$ action r6

$0a2A4 d$ GOTO

$0a2A4 d$ action s10

$0a2A4d10 $ action r2

$0S $ GOTO

$0S1 $ Accept