- 1) The base algorithm (Minimax, Alphabeta pruning, Iterative deepening, score is liberty difference between MIN and MAX)
 2) Move reordering (for MIN order actions low to high, MAX order actions high to low)
 3) The expectation is the score from depth D will give a fair indication better cut off for depth D + 1
 4) Per each iteration needs to update the data and use the action accordingly
 4) This change gives me 5% better accuracy and test time improves time 1.5 sec

Move Ordering: Ran 5 tests in 15.072s No Ordering: Ran 5 tests in 16.364s

NO ORDERING APPLIED

root@1fa790a0f67b:/home/workspace# python run_match.py -r 100

Your agent won 83.5% of matches against Minimax Agent

WITH MOVE ORDERING Algorithm

Note: (first, second, third) first = which ply, second = depth, third = total nodes visited (with iterative deepening)

The Blank Chary to this	ere the MiniMax Test age Self(Coustom) V	'S Test(Coustom)	on to not book ouplands	Self(Coustom) VS Test(MiniMax)				
ORDERING		NO ORDERING		ORDERING		NO ORDERING		
Agent_1(Test)Agent_2(Self)	Agent_1(Self)Agent_2(Test)	Agent_1(Test)Agent_2(Self	Agent_1(Self)Agent_2(Test)	Agent_1(Test)Agent_2(Self)	Agent_1(Self)Agent_2(Test)	Agent_1(Test)Agent_2(Self	Agent_1(Self)Agent_2(Tes	
(0, 1, 99)	(0, 1, 99)	(0, 1, 99)	(0, 1, 99)		(0, 1, 99)		(0, 1, 99)	
(1, 2, 972)	(1, 2, 972)	(1, 2, 972)	(1, 2, 972)	(1, 2, 972)		(1, 3, 2187)		
(2, 4, 1446)	(2, 4, 1446)	(2, 4, 1633)	(2, 4, 1633)		(2, 4, 806)		(2, 4, 1340)	
(3, 4, 1552)	(3, 4, 1552)	(3, 4, 1386)	(3, 4, 1386)	(3, 4, 1643)		(3, 5, 2751)		
(4, 4, 1635)	(4, 4, 1635)	(4, 4, 1095)	(4, 4, 1095)		(4, 4, 1285)		(4, 4, 1041)	
(5, 4, 1543)	(5, 4, 1543)	(5, 5, 2484)	(5, 5, 2484)	(5, 5, 3416)		(5, 5, 2089)		
(6, 4, 1573)	(6, 4, 1573)	(6, 5, 1014)	(6, 5, 1014)		(6, 5, 2328)		(6, 5, 1965)	
(7, 4, 1115)	(7, 4, 1115)	(7, 5, 2706)	(7, 5, 2706)	(7, 5, 2563)		(7, 5, 2808)		
(8, 5, 3663)	(8, 5, 3663)	(8, 5, 1937)	(8, 5, 1937)		(8, 5, 1565)		(8, 4, 1553)	
(9, 5, 3557)	(9, 5, 3557)	(9, 6, 2673)	(9, 6, 2673)	(9, 5, 1508)		(9, 5, 1539)		
(10, 5, 2920)	(10, 5, 2920)	(10, 6, 4038)	(10, 6, 4038)		(10, 5, 1939)		(10, 5, 3716)	
(11, 5, 3257)	(11, 5, 3257)	(11, 6, 3134)	(11, 6, 3134)	(11, 5, 1709)		(11, 5, 2029)		
(12, 5, 2431)	(12, 5, 2431)	(12, 5, 1483)	(12, 5, 1483)		(12, 6, 2748)		(12, 5, 2342)	
(13, 5, 2240)	(13, 5, 2240)	(13, 5, 1069)	(13, 5, 1069)	(13, 5, 1657)		(13, 5, 2149)		
(14, 5, 1172)	(14, 5, 1172)	(14, 5, 1263)	(14, 5, 1263)		(14, 5, 2409)		(14, 5, 1274)	
(15, 6, 3802)	(15, 5, 1190)	(15, 5, 2979)	(15, 5, 2979)	(15, 5, 1685)		(15, 5, 3865)		
(16, 6, 3295)	(16, 6, 3295)	(16, 5, 2015)	(16, 5, 2015)		(16, 5, 2156)		(16, 5, 3990)	
(17, 5, 1619)	(17, 5, 1619)	(17, 5, 2775)	(17, 5, 2775)	(17, 5, 2020)		(17, 5, 1557)		
(18, 5, 2500)	(18, 5, 2500)	(18, 5, 3278)	(18, 5, 3278)		(18, 5, 2398)		(18, 5, 2398)	
(19, 5, 2483)	(19, 5, 2483)	(19, 5, 2759)	(19, 5, 2759)	(19, 6, 1936)		(19, 5, 3159)		
(20, 5, 1086)	(20, 5, 1086)	(20, 5, 3133)	(20, 5, 3133)		(20, 5, 1423)		(20, 5, 1651)	
(21, 6, 3381)	(21, 6, 3381)	(21, 5, 2634)	(21, 5, 2634)	(21, 6, 2528)		(21, 6, 3824)		
(22, 6, 2976)	(22, 6, 2976)	(22, 6, 4146)	(22, 6, 4146)		(22, 6, 3349)		(22, 5, 1601)	
(23, 6, 3131)	(23, 6, 3131)	(23, 6, 2288)	(23, 6, 2288)	(23, 5, 1666)		(23, 5, 2342)		
(24, 7, 2426)	(24, 7, 2426)	(24, 5, 2494)	(24, 5, 2494)		(24, 5, 1441)		(24, 5, 1986)	
(25, 7, 3199)	(25, 7, 3199)	(25, 6, 4193)	(25, 6, 4193)	(25, 5, 1748)		(25, 5, 3713)		
(26, 7, 3347)	(26, 7, 3347)	(26, 6, 3393)	(26, 6, 3393)		(26, 6, 2556)		(26, 6, 2760)	
(27, 6, 2039)	(27, 6, 2039)	(27, 6, 1985)	(27, 6, 1985)	(27, 6, 1967)		(27, 5, 3213)		
(28, 7, 3136)	(28, 7, 3136)	(28, 7, 3373)	(28, 7, 3373)		(28, 6, 3736)		(28, 6, 3494)	
(29, 7, 3245)	(29, 7, 3245)	(29, 6, 3730)	(29, 6, 3730)	(29, 6, 1142)		(29, 5, 2537)		
(30, 7, 3565)	(30, 7, 3565)	(30, 5, 2105)	(30, 5, 2105)		(30, 7, 3240)		(30, 6, 3619)	
(31, 6, 1390)	(31, 6, 1390)	(31, 6, 4227)	(31, 6, 4227)	(31, 6, 2534)		(31, 5, 1771)		
(32, 7, 2565)	(32, 7, 2565)	(32, 6, 3513)	(32, 6, 3513)		(32, 6, 1821)		(32, 6, 2404)	
(33, 8, 2364)	(33, 8, 2364)	(33, 5, 2101)	(33, 5, 2101)	(33, 6, 1671)		(33, 5, 1333)		
(34, 8, 3662)	(34, 8, 3662)	(34, 6, 3502)	(34, 6, 3502)		(34, 7, 3125)		(34, 6, 1878)	
(35, 6, 1430)	(35, 6, 1430)	(35, 5, 1749)	(35, 5, 1749)	(35, 7, 2862)		(35, 6, 3874)		
(36, 7, 3415)	(36, 7, 3415)	(36, 6, 4258)	(36, 5, 1437)		(36, 7, 2315)		(36, 6, 1799)	
(37, 8, 2079)	(37, 8, 2079)	(37, 6, 3833)	(37, 6, 2346)	(37, 8, 3513)		(37, 6, 2604)		
(38, 9, 2375)	(38, 9, 2375)	(38, 5, 2110)	(38, 6, 3734)		(38, 8, 3499)		(38, 6, 1957)	
(39, 9, 3667)	(39, 9, 3667)	(39, 6, 4094)	(39, 5, 1968)	(39, 7, 1407)		(39, 7, 3084)		
(40, 8, 3330)	(40, 8, 3330)	(40, 6, 2925)	(40, 5, 1917)		(40, 8, 2624)		(40, 7, 2791)	
(41, 8, 1868)	(41, 8, 1868)	(41, 6, 3022)	(41, 5, 1667)	(41, 7, 2819)		(41, 7, 3706)		
(42, 9, 2217)	(42, 10, 3614)	(42, 6, 3215)	(42, 6, 2729)		(42, 9, 2552)		(42, 9, 4137)	
(43, 9, 2264)	(43, 9, 2264)	(43, 6, 1784)	(43, 6, 1863)	(43, 7, 1968)		(43, 8, 3995)		
(44, 10, 3635)	(44, 10, 3635)	(44, 7, 2518)	(44, 7, 3950)		(44, 12, 3683)		(44, 9, 3115)	
(45, 12, 2982)	(45, 12, 2982)	(45, 7, 2543)	(45, 7, 2576)	(45, 10, 3519)		(45, 8, 4319)		
(46, 11, 3409)	(46, 11, 3409)	(46, 9, 3194)	(46, 7, 3192)		(46, 14, 3519)		(46, 11, 3489)	
(47, 11, 2646)	(47, 12, 3835)	(47, 8, 3054)	(47, 8, 3723)	(47, 8, 3578)		(47, 8, 3210)		
(48, 12, 2848)	(48, 12, 2848)	(48, 14, 4579)	(48, 9, 3692)		(48, 13, 3666)		(48, 16, 3801)	
(49, 12, 2811)	(49, 12, 2811)	(49, 10, 537)	(49, 8, 3223)	(49, 10, 2163)		(49, 8, 3719)		
(50, 10, 2285)	(50, 10, 2285)	(50, 11, 643)	(50, 9, 2976)		(50, 13, 3587)		(50, 14, 3740)	
(51, 12, 3430)	(51, 12, 3430)	(51, 8, 124)	(51, 10, 2870)	(51, 10, 3298)		(51, 9, 3802)		
(52, 6, 111)	(52, 6, 111)	(52, 7, 152)	(52, 10, 3680)		(52, 15, 3590)		(52, 12, 3677)	
(53, 14, 2920)	(53, 14, 2920)	(53, 6, 94)	(53, 11, 3849)	(53, 15, 3173)		(53, 7, 272)		
(54, 13, 644)	(54, 13, 644)	(54, 5, 81)	(54, 11, 3213)		(54, 16, 3478)		(54, 10, 3460)	
(55, 10, 246)	(55, 10, 246)	(55, 2, 4)	(55, 10, 3287)	(55, 22, 3500)		(55, 5, 10)		
(56, 9, 236)	(56, 9, 236)	(56, 1, 1)	(56, 14, 4171)		(56, 16, 3770)		(56, 10, 3090)	
(57, 8, 210)	(57, 8, 210)		(57, 13, 4404)	(57, 4, 31)		(57, 3, 3)		
(58, 7, 217)	(58, 7, 217)		(58, 16, 3751)	, . ,	(58, 22, 2190)	, . ,	(58, 10, 1355)	
(59, 6, 109)	(59, 6, 109)		(59, 20, 4200)	(59, 2, 3)		(59, 1, 0)		
(60, 5, 30)	(60, 5, 30)		(60, 20, 1034)	\			(60, 8, 367)	
(61, 4, 20)	(61, 4, 20)		(61, 19, 1172)				(22, 3, 307)	
(62, 3, 6)	(62, 3, 6)		(62, 18, 979)				(62, 6, 153)	
(63, 2, 3)	(63, 2, 3)		(63, 17, 1112)				(, 0, 100)	
(55, 2, 5)	(55, 2, 5)		(00, 11, 1112)					

(64, 1, 1)	(64, 1, 1)	(64, 16, 867)		(64, 4, 25)
		(65, 15, 982)		
		(66, 14, 823)		
		(67, 13, 1049)		
		(68, 12, 446)		
		(69, 11, 193)		
		(70, 8, 48)		
		(71, 7, 56)		
		(72, 6, 35)		
		(73, 5, 43)		
		(74, 2, 2)		
		(75, 1, 1)		