ANGRY BIRDS KINGFISHER

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FUNCTIONS IMPLEMENTED :

The following functions are implemented in ABUtil class.

difficultyOfTrajectory function is used to find the difficulty of the trajectory.

getLeftObsOfTrajectory function is used to get the left most object on trajectory path.

We’ve added one feature to improve strategy. We’re taking logs of the actions and level scores in a file which we’ve analysed and improved strategy accordingly.

Strategy in parts:

Major changes are done in the NaiveAgent’s solve method.

First of all to select a pig, we’re using 2 strategies - one is to choose the nearest pig from the sling and the other one is to choose the highest pig.

Tricky part in our strategy is to choose a best shot:

First of all, we’ve selected the shot for lower angle. Then we are checking if the target is directly reachable by the upper angle trajectory then we switch our shot to the upper angle.

Now by 1/3 probability, we are switching the shot to hit the base of the selected pig if there is any and it is not a hill.  
 We’ve manipulated tap interval values according to the output.

Plus if there is only red bird and difficulty of the trajectory path is higher than its potential power then we’re switching our shot to higher angle trajectory.

Besides this, We’ve also created another agent MinCostAgent. In this agent we’re iteration through all the pigs and finding difficulties of their trajectories. We’re choosing least difficult trajectory. But this agent doesn’t seem to work in all cases.

Scores of levels:

1 - 29410

2 - 43250

3 - 40460

4 - 27850

5 - 66930

6 - 17510

7 - 19130

8 - 57570 (4 restarts)

9 - 52730

10 - 38430 (2 restarts)

11 - 42710

12 - 55780

13 - 25400 (3 restarts)

14 - 55640

15 - 50680

16 - 46660

17 - 41810 (2 restarts)

18 - 43870

19 - 32460

20 - 40410 (4 restarts)

21 - 52460 (3 restarts)

Total - 881150