Project 1

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# Introduction:

## Overall idea for addressing the problem:

The 2 x 2 Raven’s Progressive Matrices (RPM) problems will be addressed by my agent using the **visual approach**. My agent uses the visual representations of each problem to reason and decide on the correct answer.

I will be using similarity ratio to compare two images, and to find the transitions. I will then use the same transition between the third image and each of the 6 option answer images. I will match the option with maximum similarity ratio as the correct answer for that problem.

# Journal Entries:

## Submission 1:

Date and Time: 2019-09-14 02:56:25 UTC

**What did you change for this version? Why?**

This is my first submission and I followed the visual approach to build the agent that can solve the RPM problems.

**How would you compare this version of the agent to the way you feel you, a human, approach the problems? Does it think similarly to how you think, or differently?**

My agent does not think the way I do, it takes a different approach where it breaks the problem into multiple steps. Whereas, a human solves the problem by just looking at it and reasoning to decide on the correct answer.

**How did it perform? What problems or types of problems did it do well on? Where did it struggle? How is its efficiency?**

For the first submission, I think my agent performed pretty well. The execution time was only 36.621 seconds.

# Conclusion:

**How would you characterize the overall process of designing your agent? Trial-and-error? Deliberate improvement? Targeting one type of problem at a time?**

For designing my agent, I followed the process of targeting one type of problem at a time.

**How similar do you feel your final agent is to how you, a human, would approach the test? Why or why not?**

My final agent is somewhat similar to how a human would solve these problems. However, the agent requires some more improvement in order to reach the level of human cognition. Human solves the problem by looking at each problem and deciding which answer looks correct. Whereas, my agent breaks the transformations down to simple steps to decide on the correct answer.

**What improvements would you make if you had more time and/or more computational resources?**

If given more time and resources, I would improve my agent to look at multiple transformations at the same time, just like humans.