AWS DATA PROCESSING INFRASTRUCTURE 3B

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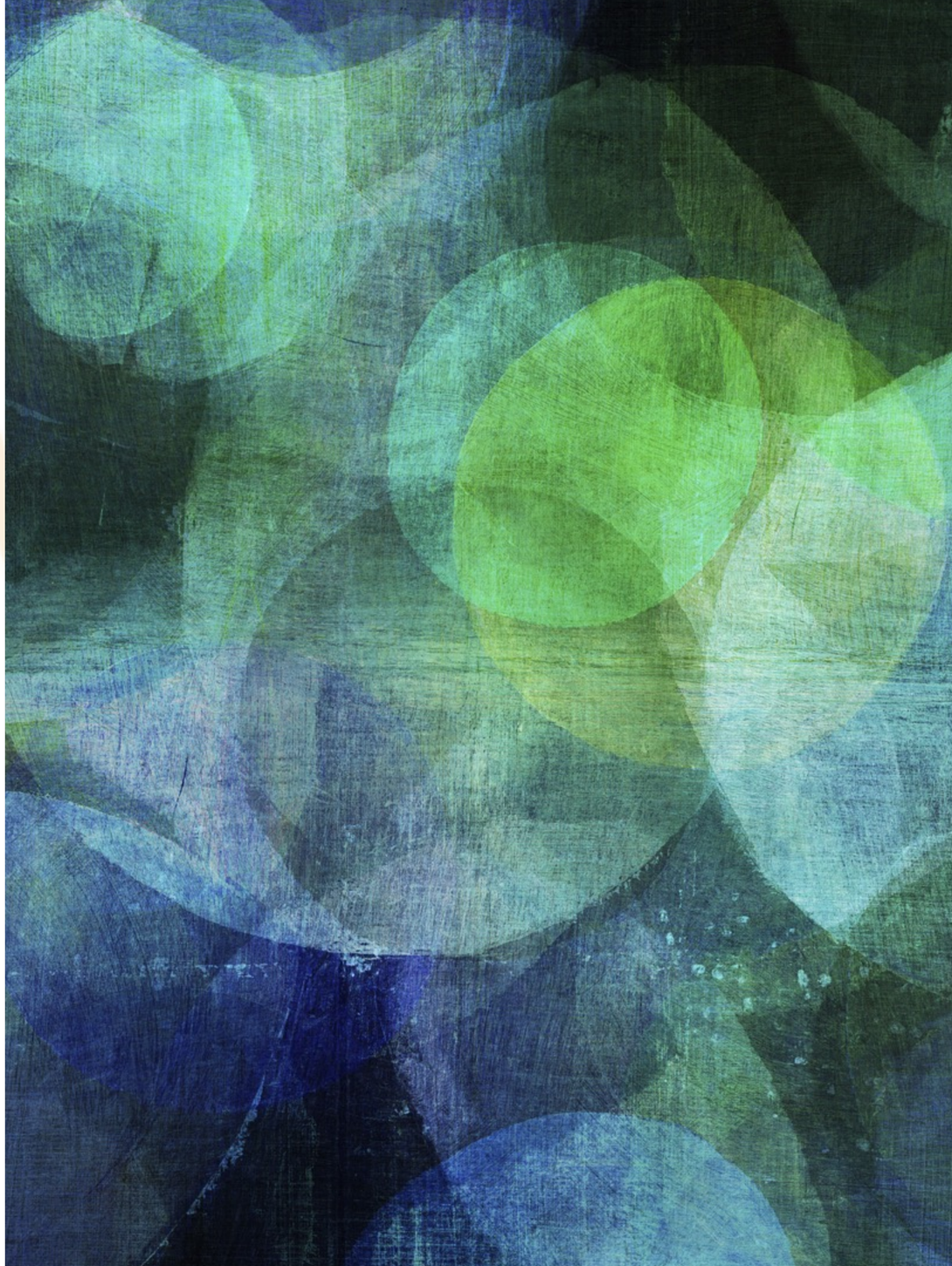

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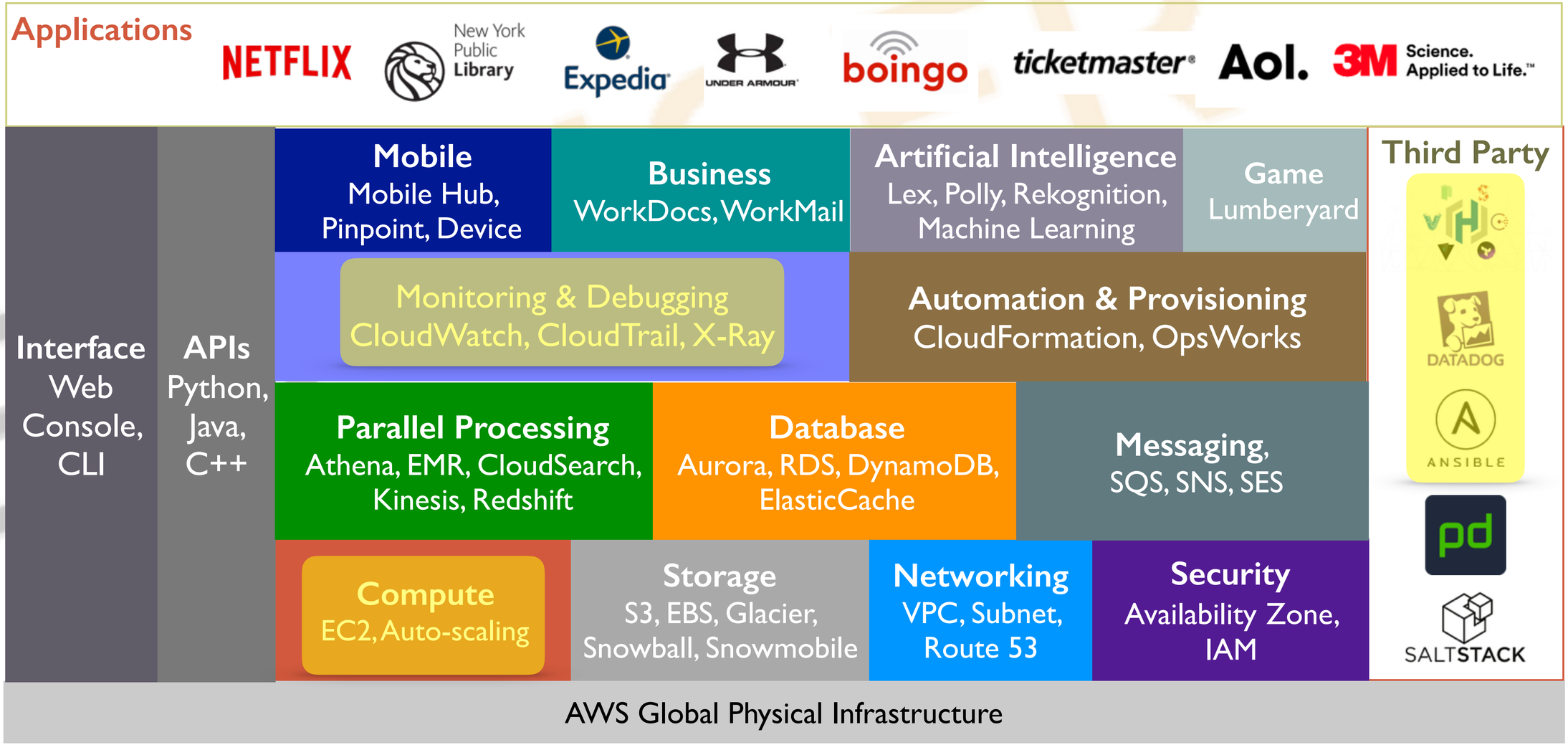
TODAY'S TOPIC



ELB

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APPLICATION LOAD BALANCER

- resource “aws_alb”
- resource “aws_alb_target_group”
- resource “aws_alb_target_group_attachment”
- resource “aws_alb_listener”
- resource “aws_alb_listener_rule”
  - path pattern: “/webserver${count.index}/*”

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TERRAFORM INTERPOLATION TRICKS

- Interpolation
  - https://www.terraform.io/docs/configuration/interpolation.html
- Get list element
  - "${element(split(",", var.mapper["spot_instance_counts"]), count.index)}"
- Get list length
  - "${length(split(",", var.mapper["spot_instance_types"]))}"
- Get value according to flags
  - "${var.aws["use_load_balancer"] ? var.webserver["count"] : 0}"
  - "${(var.aws["use_load_balancer"] && var.webserver["count"] > 0) ? 1 : 0}"

AUTO SCALING GROUP

AUTO SCALING GROUP

- resource “aws_launch_configuration”
- resource “aws_autoscaling_group”

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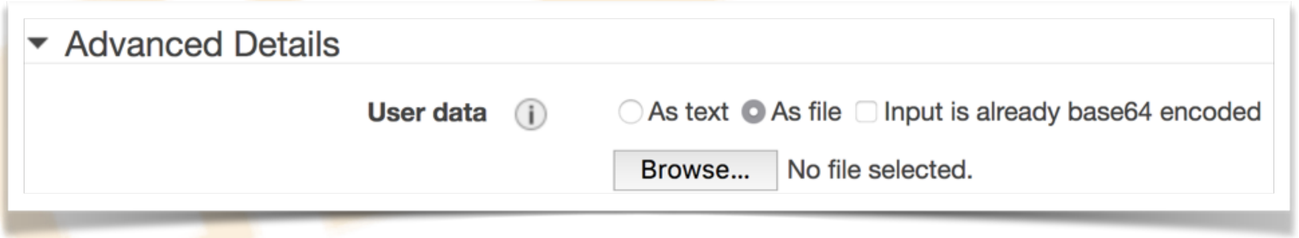
USER DATA

- user_data = “${file(“userdata.sh")}"



- Make it less change
  - User data changes leads to resource change
- or separate dynamic part and dynamic part
  - userdata.sh vs. setup.sh

SPOT INSTANCES

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SPOT INSTANCE

- resource “aws_spot_instance_request"
  - Same as “aws_instance”

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SPOT FLEET

- resource “aws_spot_fleet_request”
  - iam_fleet_role
  - allocation_strategy
  - spot_price
  - launch_specification
    - user_data

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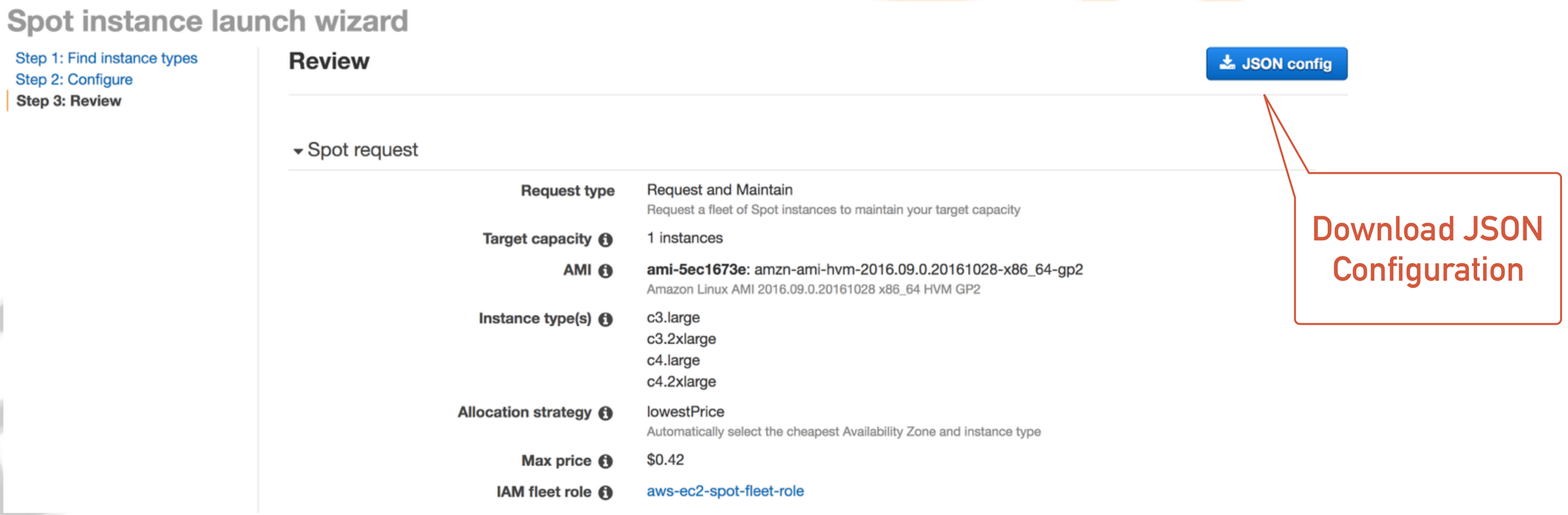
SPOTFLEET REQUEST FROM AWSCLI



- $ aws ec2 request-spot-fleet --spot-fleet-request-config file://spotfleet.json

“

Whenever you find yourself on the side of majority, it is time to pause and reflect.

-Mark Twain

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CLOUDWATCH

INSTALL AWSLOGS AGENT

- Amazon Linux
  - yum install -y awslogs
- Other Linux
  - http://docs.aws.amazon.com/AmazonCloudWatch/latest/logs/QuickStartEC2Instance.html
- Ansible to configure and start
  - Copy configuration files
  - Start service

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HOMEWORK

- Play with Terraform to
  - Launch ELB
  - Launch spot instance of mapper
  - Launch spot fleet
  - Launch auto scaling group
- taxi/mapred.py
  - Learn how to read S3 object by range
  - Run to see some results

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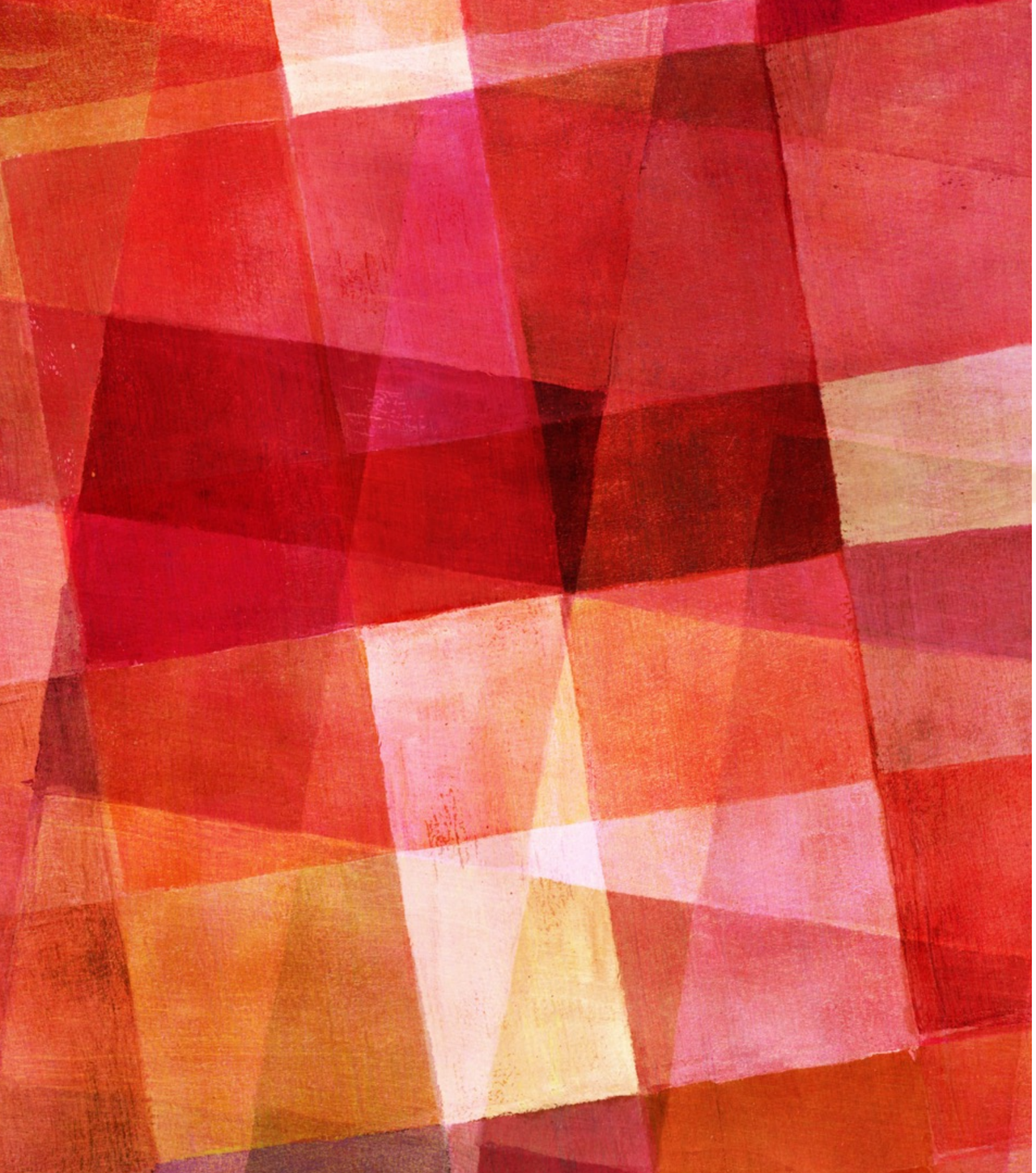

QUESTIONS

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