2 KIND OF INTERNSHIPS

1. R&D KIND – WHERE DEVELOP SOMEHTING NEW
2. **ADDDING NEW OPERATIONAL ASPECT TO EXISTING (ON THE GROUND) TECHNOLOGY**

I WORKED AT IBM ICDS OFFERING WHICH IS IBM CLOUD DEVELOPMENT SERVICES (DIRECTOR- AMIT MERCHANT)

**BRIEF OF ICDS** – IT IS A CLOUD OFFERING PROVIDED BY IBM TO DEPLOY or PROVISION VMS ON VMware ENVIRONMENTS IN AN ON/OFF PREMISE CLOUDS OR PUBLIC CLOUDS IN AN AUTOMATED AND ORCHESTRATED MANNER. ANY BARE VM YOU GET FROM CLOUD NEEDS TO PROVISIONED (PRE & POST) BEFORE PUTTING ON ENTERPRISE

ICDS SUPPORTS VMware TECHNOLOGIES LIKE vRA, IBM TECHNOLOGIES LIKE ICP/CAM AND SOONER OR LATER BROKER AND CLOUD FORMS AS CLOUD PLATFORMS.

OUR MENTORS WERE WORKING WITH OAP SO WE JOINED HANDS WITH THEM AND STARTED DOING A SUBPART OF IT WHICH IS A VERY IMPORTANT AND CRITICAL PART.

So LET US TAKE A LOOK AT OAP IN 3 WAYS :-

**PROBLEM**

VM REUSABILITY INVOLVES PRE AND POST PROVISIONING ACTIVITIES TO MAKE IT USABLE WHICH ARE DONE IN AN AUTOMATED FASHION. AND THE AUTOMATION IS WRITTEN IN A NATIVE ORCHESTRATED WAY.

THIS MEANS RECODING OR REWRITING SAME THING IN DIFFERENT WAYS FOR EACH PLATFORM.

THIS DECREASES REUSABILITY

INCREASES WORK AND MAINTENANCE

**WHAT IS OAP (APPROACH)**

ORCHESTRATOR AGNOSTIC PLATFORM

WE HAVE SO MANY ORCHESTRATORS

WE ARE WRITING IT IN AN AGNOSITC MANER

AND IT IS A PLATFORM

ORCHESTRATION AND AUTOMATION OF THINGS

AGNOSTICITY SO THAT SINGLE CODE RUNS WITH ALL PLATFORMS

**SOLUTION**

1. Platforms –
   * 1. Functions based On Openwhisk, Airflow, Chef, Ansible
     2. Hosted on a KUBERNETES ENGINE as a CONTAINER
2. Write logic in functions. This becomes agnostic code. This makes the functions independent.
3. Expose every function in API.
4. Writing a thin code in airflow to concatenate functions (say 1 airflow to conat 20 functions to save time).
5. This API can be consumed by native orchestrators.

**POC**

1)USE CASE

2)TOOLS

**DEMO**

1. WE HAVE vRA AS ORCHESTRATOR. IT IS INTEGRATED WITH Vcenter and OAP and NETBOX.
2. USER SUBMITS A REQUEST BY SELECTING DATA LIKE MEMORY, ETC.
3. vRA CONNECTS TO OAP WHICH THEN CONNECTS TO NETBOX
4. IP ADDRESS ASSIGNED TO vRA BY NETBOX IPAM
5. vRA PROVISIONS THE VM ON THIS IP
6. PERFORMS POST PROVISIONING ACTIVITIES LIKE CONNECTING VM TO ACTIVE DIRECTORY, INSTALL SOME SOFTWARE, PACKAGES, ETC.