February.2018 - March.2018 @ HSC

REBOOT!

...TO SDE-1...

Do & Learn:
Solve a Problem! **Less Gyan, More Action!**

Collaborate:
Work as a Team!

Be Guided:
Walk with a Mentor!

- 3 or 4 Member Teams
- Assorted backgrounds & tech.
- Share & Receive knowledge

YOU ARE GROUP-ED!!

Build a Customer Account Management UI
with secure access supported by Registration & Login;

Given the SLAs:

- ~1 Million Customers & Growing
- ~100,000 page-views per day
- 80:20 – reads / writes
- < 2 sec. page load times
- ~1000 Concurrent Users

UI

CUSTOMER ACCOUNT MANAGEMENT

Build the underlying service(s) to support account management

- Create / Modify Customer Account Data, with PII Data
- Accessible to both internal apps & external Tesco consumers
- Secure Access
- Response Times < 200 ms per call
- Throughput > ~2000 TPS

SERVICE

Build an integration layer where profile data from multiple channels
(both online & offline – ex: CSD Tills, Support Centres) are recd.,
in daily batches having the last 90-day spend.

Identify segments that will divide customers
into three equal groups based on the 90-day spend data

- ~100,000 profile changes from across ~3500 stores
   (Including updates, activations & de-activations)
- Profile changes recd. as files in CSV format, via FTP/SFTP
- All Stores transmit the files almost at the same time
- ~3500 files to be processed, every day

INTEGRATION

System and component design
- Document high level designs & design decisions
- Logical and physical views

Document low level designs
- Class diagrams
- Sequence diagrams

Document data models & API contracts

Apply best-practices, CI-CD & design principles

Consider & apply key NFRs in the design
- Performance
- Scalability
- High Availability
- Security

Awareness about trade-offs

EVALUATION EXPECTATIONS

HAVE FUN !!!