

# DAG Designer



Name – Ruchit Bhardwaj

Mentor – Neha Tanwar

Manager – Gaurav Chopra

# CONTENTS

- CONCEPT AND VISION
- APPLICATION OVERVIEW
- PROJECT FLOW
- TECH STACK
- AGILE METHODOLOGY
- QA ROLES AND RESPONSIBILITIES

# PRESENTATION OVERVIEW

## CONCEPT & VISION

- Sales Reps are having a hard time reaching out to doctors.
- The main aim is to assist these reps to increase their business by providing them logical suggestions backed by certain triggers



Focusing on the Sales part of it, how do we provide suggestions to the reps?  
Suggestions are based on certain Triggers/Metrics.  
Example – If the sales of the last quarter fall below a certain threshold, THEN a suggestion needs to be generated for the reps. Based upon these suggestions, reps can take effective actions.

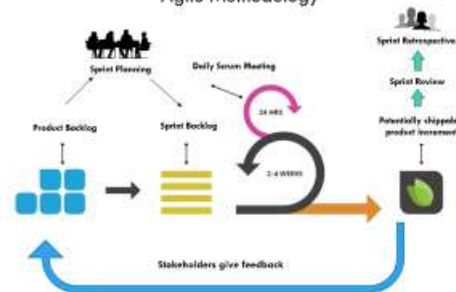
## APPLICATION OVERVIEW - MODULES



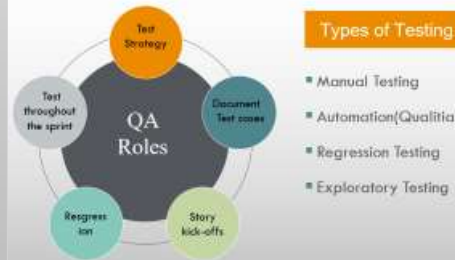
## TECH STACK



## Agile Methodology

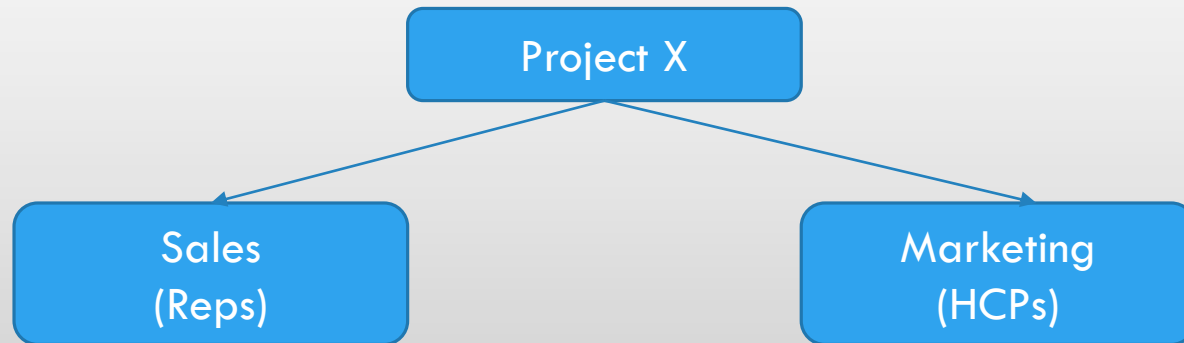


## QA Roles and Responsibilities



# CONCEPT & VISION

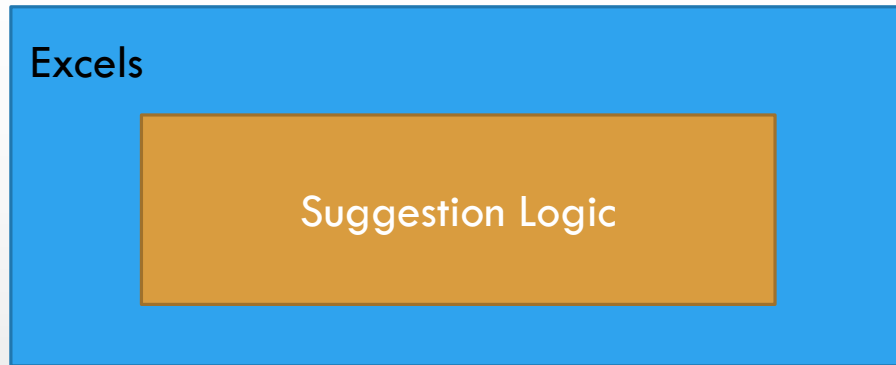
- Sales Reps are having a hard time reaching out to doctors.
- The main aim is to assist these reps to increase their business by providing them logical suggestions backed by certain triggers



Focusing on the Sales part of it, how do we provide suggestions to the reps?

Suggestions are based on certain Triggers/Metrics.

Example – If the sales of the last quarter fall below a certain threshold. THEN a suggestion needs to be generated for the reps. Based upon these suggestions, reps can take effective actions.

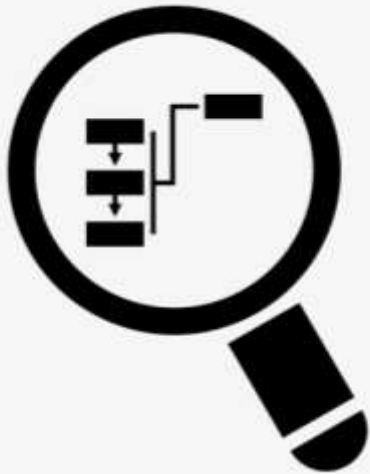


- Mammoth number of excels
- Confusing
- Error prone
- Leads to wastage of time and resources
- Solution – DAG Designer

Structure of a typical Excel -

Node	Parent	Operation	Contained_Action
Source			
SQL	Source	select * from tablename	
Write	SQL		
Trigger			Write

# Motivation for DAG Builder



Visual representation of nodes/tasks



Bottom Up Approach

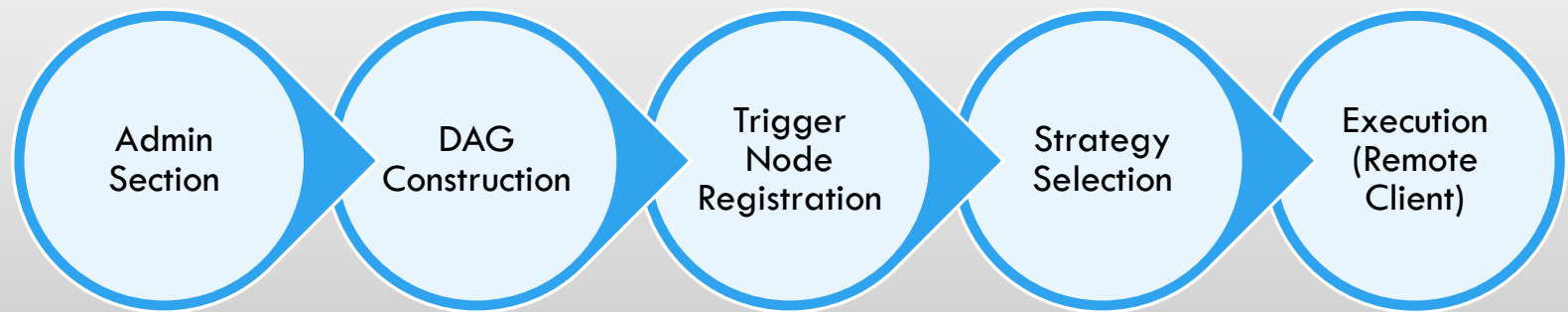


Less prone to errors and Time saving



Clarity of thoughts

# APPLICATION OVERVIEW - MODULES



# ARCHITECTURAL COMPONENTS – ADMIN SECTION

Instance = Directory (Collection of Projects) – analogous to clients

**Consumer App – Development (Committed Environment)**

Project 1

Create DAG



SAVE, COMMIT & TAG  
releases.



Execute DAG

**Consumer App – Execution (Released Environment)**

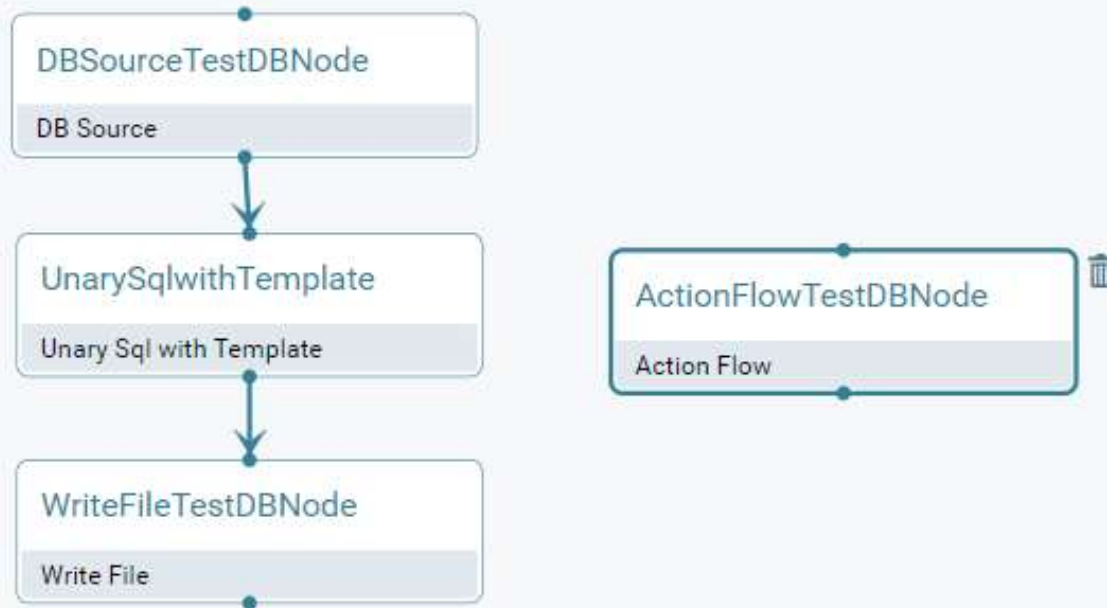
Project 1

Execute DAG

Postgres Database



# DAG Construction



# Trigger Node Registration & Strategy Selection

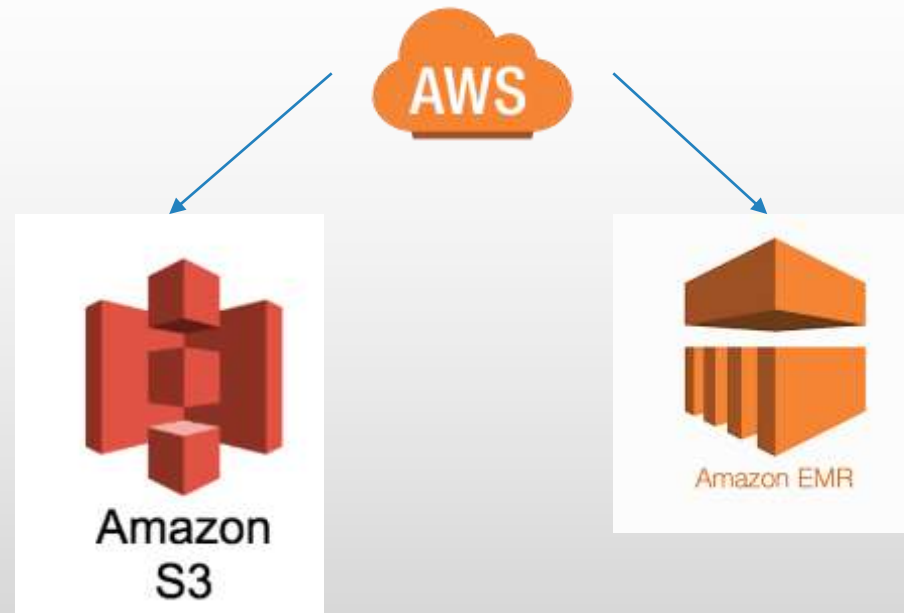
The screenshot displays the 'Ruchit | Project Details' interface. At the top right, there are buttons for 'Rename', 'Commit', and 'Discard'. Below the header, a 'Jobs' section is visible. It includes a 'Jobs List' table with columns: Job Name, Flow Name, Schedule, and Actions. A single job is listed: 'SF-PTT' with flow 'ActionFlowViewCreation'. To the right of the table, there is an 'Editing Mode' toggle set to 'OFF' and a 'Create Job' button. Below the jobs list is a 'Jobs Execution List' section, which is currently empty, showing 'No Data Found'.

Job Name	Flow Name	Schedule	Actions
SF-PTT	ActionFlowViewCreation		

Flow Name	State	Completion Status	Create Time	Update Time	Logs
No Data Found					

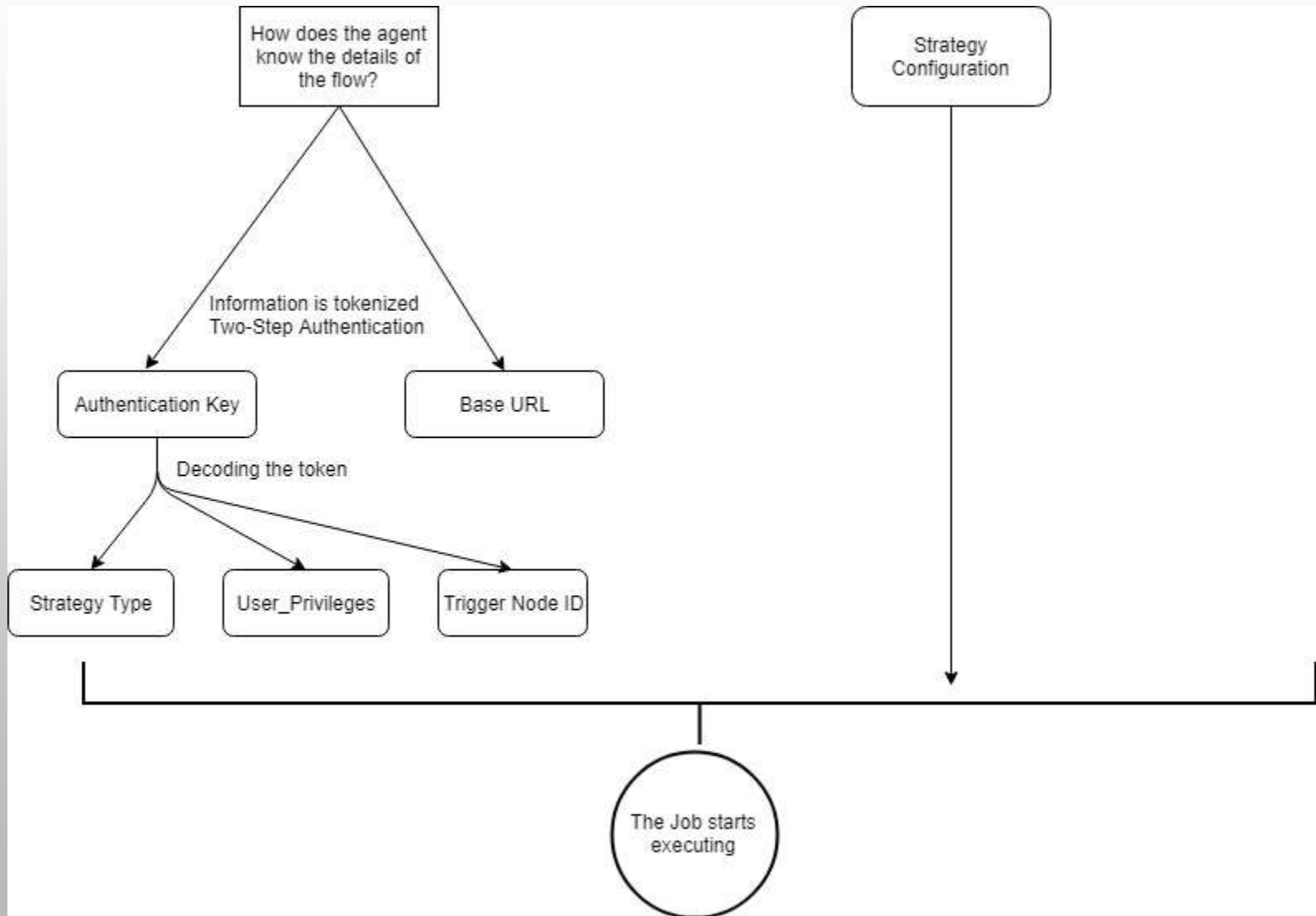
- Once the trigger node is registered, a strategy needs to be selected.
- Strategy serves as a way to resolve any dependencies that the DAG nodes might require to successfully complete their execution
- Strategy can be one of the following –
  - Global SaaS – same for all instances
  - Per Instance – specific to certain instance since different client might want different configurations for their project

# Services used for Remote Client Execution

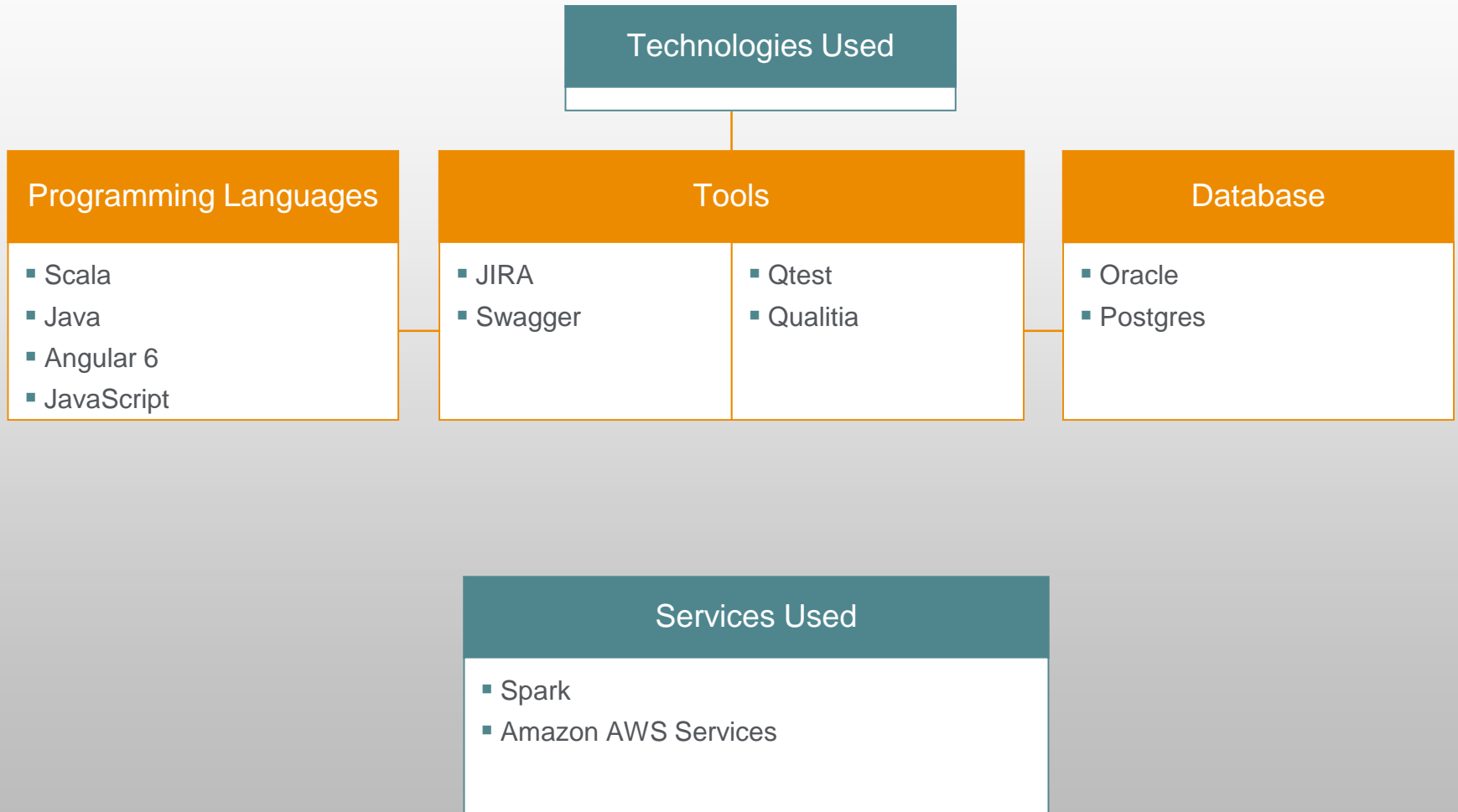


Simple Storage Service	EMR
Storage repository	Easy way to process and analyze data
Analogous to the conventional File structure – concept of buckets	Scalable according to need
Cost effective	Cost effective

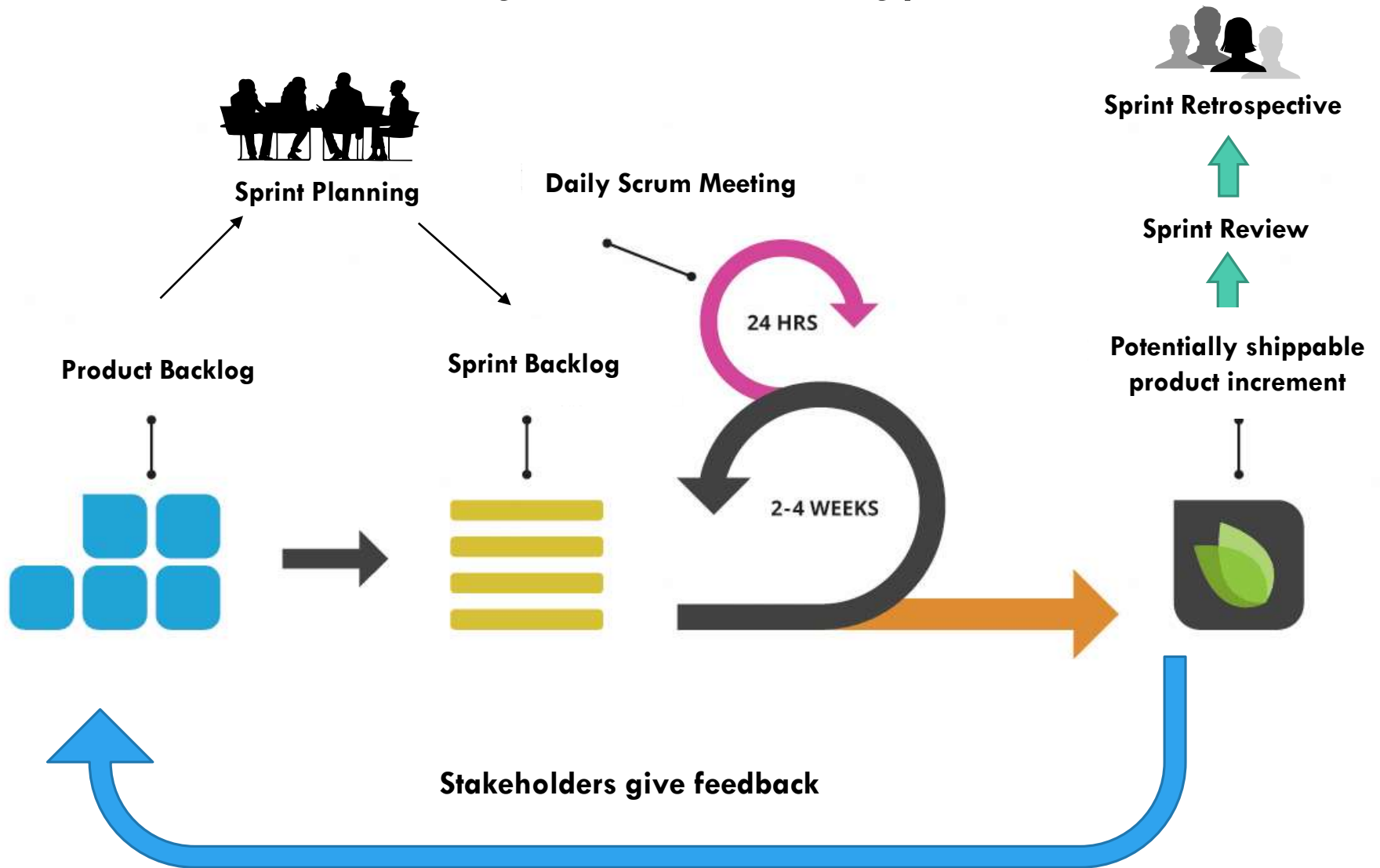
# Flow Diagram for Job Execution



# TECH STACK



# Agile Methodology



# JIRA DASHBOARD

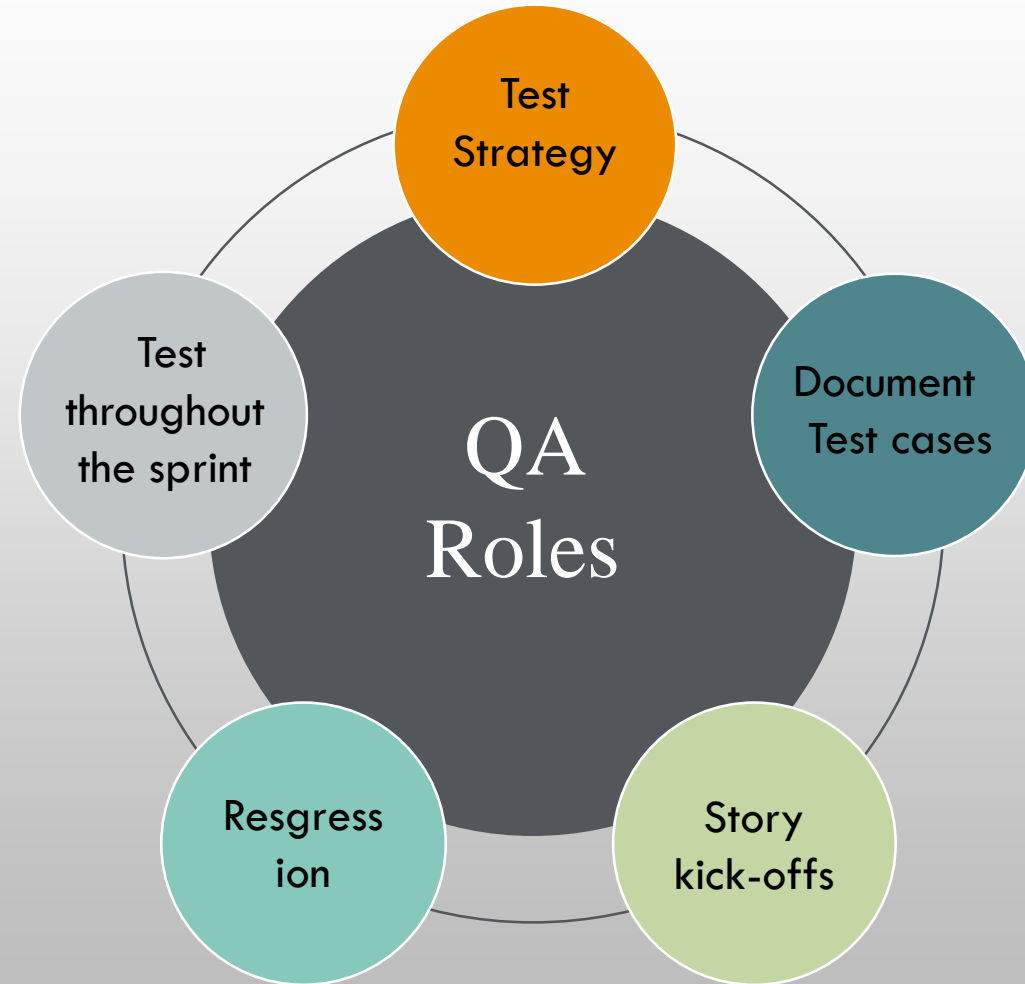
The image shows a Jira dashboard interface with several annotations:

- Sprint Name:** An arrow points to the text "R2.1 Sprint8" in the sprint header.
- Sprint Duration:** An arrow points to the text "8 days remaining" in the sprint header.
- Backlog Tasks:** An arrow points to the "Active sprints" link in the left sidebar.
- Sprint Tasks Bifurcation:** A bracket points to the status bars (TO DO, IN PROGRESS, etc.) in the sprint header.
- Create tasks, issues, bugs etc.:** An arrow points to the "+" icon in the left sidebar.

The dashboard content includes:

- Sprint Header:** "R2.1 Sprint8", "8 days remaining", "Complete sprint", and a menu icon.
- Sprint Members:** A search bar and "Quick filters" / "Clear all" buttons.
- Status Bars:** "TO DO 0 of 13", "IN PROGRESS 0 of 4", "IN REVIEW 0 of 2", "Max 5", "RESOLVED 0 of 1", "IN TESTING 0 of 1", and "DONE 0".
- Issue Placeholder:** A graphic showing a task card and a blue box, with the text "No issues here".

# QA Roles and Responsibilities



## Types of Testing

- Manual Testing
- Automation(Qualitia)
- Regression Testing
- Exploratory Testing



# Basic tasks in testing

## Planning

- Sprint Planning

## Document test cases

- Discuss Test Scenarios
- Document Test Cases in Qtest
- Link test cases to JIRA stories

## Discussions

- Discuss with UX

## Testing

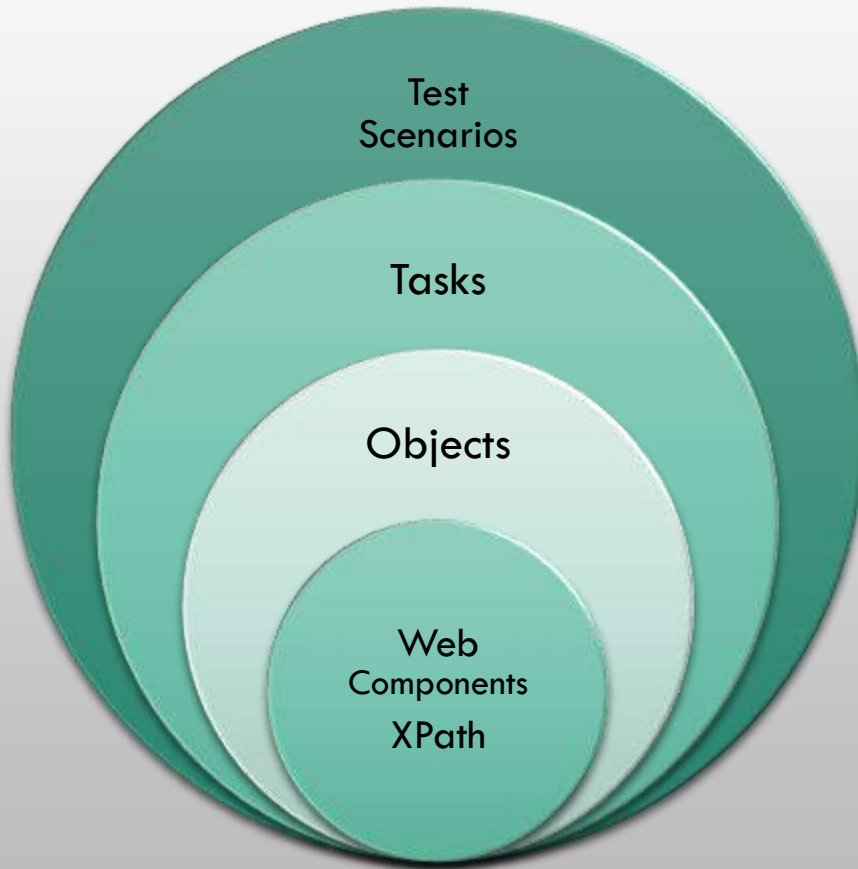
- Story Kick-offs
- Testing on QA environment

## Demo

- Demo your work

## Regression

- Test the basic functionalities



- A trending tool for automation testing
- A full fledged report of the automation is available after the test case run
- Wrapper over Selenium Web Driver
- Makes the overall process of automation testing a lot simpler

Thankyou