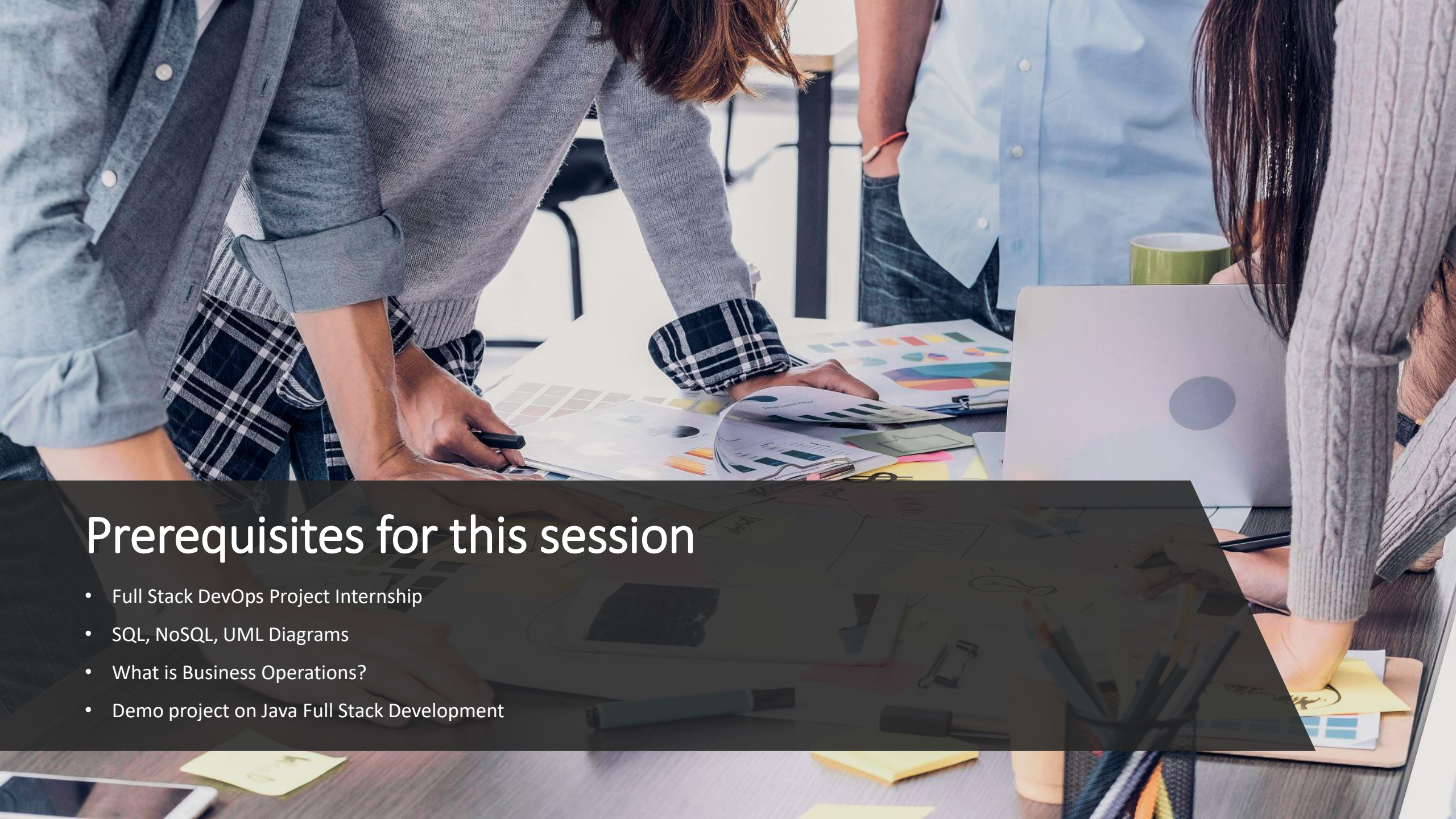
Agile Software Development

- An overview to Omni-Channel product development by Shobhika



Prerequisites for this session

- Full Stack DevOps Project Internship
- SQL, NoSQL, UML Diagrams
- What is Business Operations?
- Demo project on Java Full Stack Development

Prerequisites for the Web Development

Software Engineering Principles: Analysis, Design, Coding, Testing, and Maintenance

Basic Knowledge of **Website Development** using HTML, CSS, Java, and SQL to learn the code flow from front end to the back end

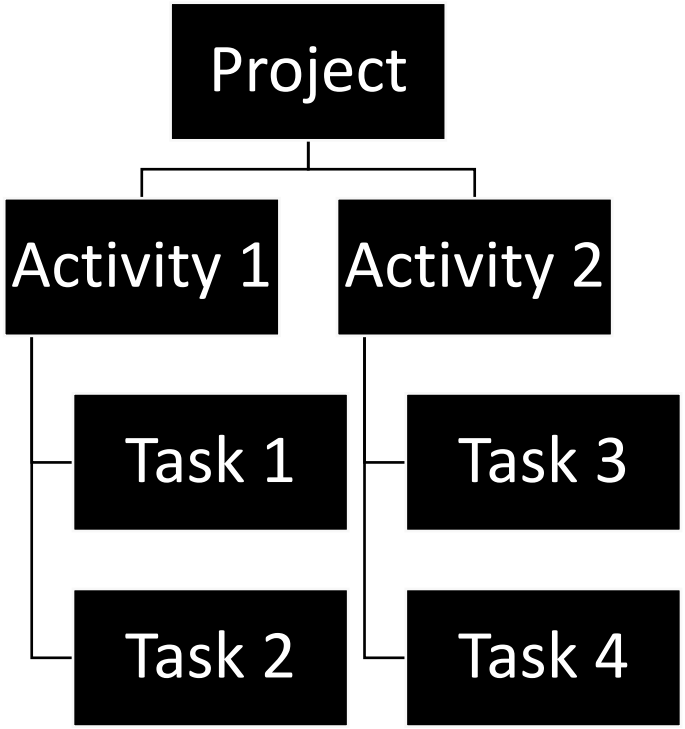
Deep understanding of exceptions and errors for **Troubleshooting and Debugging**

Working knowledge of Notepad++, Sublime, Atom etc.,

Google Search (keyword search changes from time to time)

BROWSER
WEB
JAVA
FILE
BOOKMARKS
INTERNET
PLUG
BROWSERS
ADDITIONAL
EXTERNAL
WAYS
SUPPORTS
AVERAGE
ACTIVE
ONE
OPTIONS
FORMAT
FUNCTIONALITY
FORMATTED
EXTENSION
DOMAIN
SURFING
HOWEVER
MOZILLA
COMPONENTS
XML
STANDARD
THINGS
SERVER
BASIC
WELL
OPTION
VISUAL
OPERA
BARS
PLATFORM
PAGES
FEATURES
MEANS
POSTFIXES
EVEN
SUPPORTED
OTHERENABLED
BROWSING
BOUNDARIES
LOOKING
SESSION
ADDRESS
ADDED
FULLY
INTERFACE
BAR
OPT
FOUND
LINES
IMPROVE
THREADED
EASE
WAY
SIMULTANEOUSLY
MULTI
KEY
SEVERAL
NEW
HTML
PROVE
ENJOYABLE
HOME
USER
CHANGING
LOOKS
APPEARANCE
SIMPLY
GREAT
PUT
RUNS
OPERATION
RICH
TERMS
OPERATES
SEAMLESS
ADD
CHANGE
INS
CODE
FUNCTIONALITIES
SETTINGS
FREEDOM
WANT
COMBINATIONS
EXCUSED
ADR
EXAMPLE
ALTERNATIVELY
SPECIFY
AVAILABLE
POSSIBLE
EXPOSE
PREFIXES
SUPPORT
LOADED
WINDOW
DIFFERENT
AMONG
REASON
ADVANCED
URL
UNDOUBTEDLY
QUICKOBJECTS
OPERATING
EDIT
EXTEND
CUSTOMIZABLE
MAKE
SUPERIOR
CLICKING
THINKING
OFFER
USING
HISTORY
USUALLY
USED
ENHANCED
PROXY
EITHER
LIKE
COMPLETION

Work Breakdown Structure

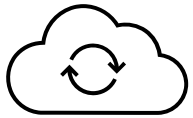


Prerequisites for Software Delivery

- ***Agile Software Development***: Analysis, Design, Coding, Testing, Scrum, Backlog, Burndown chart
- Basic Knowledge of business operations and use cases
- Requires Technical skillset ***Java, J2EE, Java Frameworks, SQL***
- Basic Knowledge of the DevOps tools such as ***JIRA, Confluence, Gitlab, Jenkins, Sonar***
- Hands-on on the Logging tool: ***Elasticsearch***
- Hands-on on the API Testing tool: ***Postman or Insomnia***
- Technical Architecture and Technical Stack
- Scope of controller projects (***Endpoint call, Swagger contracts, api_response***)
- Work in Collaboration with other teams such as Frontend, Backend, Infrastructure, and other teams

Configurations

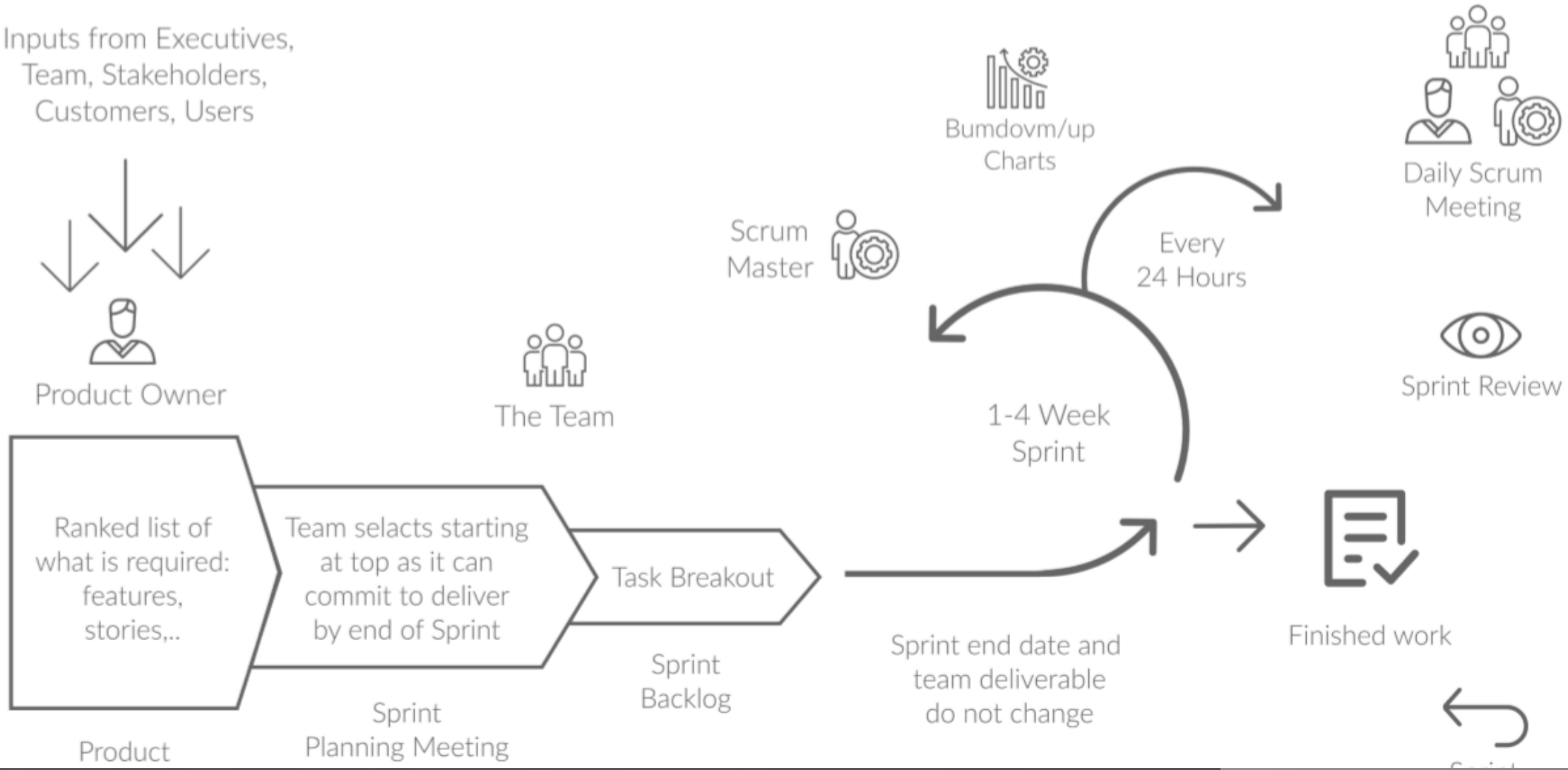
- Endpoint calls
- Design Patterns in Monolithic & Microservices Projects
- Configuration files such as application.properties and pom.xml
- Basic SQL commands
- Referential Integrity

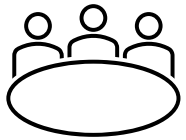


Typical Agile Delivery

- Estimated Time of Arrival (ETA)
- Epic, Sprint, Agile Program
- Story estimation points
- If needed, get an approval from the Governance team
- Testing Environments (dev, qa, stg, prod)
- Launch in Markets
- Other frequently used acronyms (DIT, SIT, UAT)
- Central Repository such as GitHub
- CI/CD Pipeline

THE AGILE: SCRUM FRAMEWORK AT A GLANCE





Agile Teams

- Team members are cross trained to work autonomously
- Work productively on their tasks within dedicated hours
- Collaborate with other teams to work in parallel on the work product
- Create a self feedback cycle for self learning through ***Plan, Do, Check, Act, Repeat***
- Appreciate teammates and give constructive feedback
- Identify roadblocks proactively
- Go an extra mile when met with an exception/error in the product delivery
  - Google for the right keywords
  - Search for more information (Start with Why?)
  - Ask for help immediately
  - Work in collaboration
  - Be quality driven

Stages of Team Development

Forming

- Independent behaviors by team members
- Focused on themselves
- Unclear on objectives
- Best behavior

Storming

- Form opinions of others on team
- Begin to challenge others who they see as not contributing

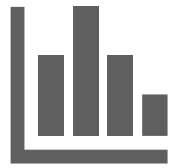
Norming

- Common purpose is clear
- Relationship has increased
- Shared responsibility
- Greater tolerance of other team members' quirks
- Norms are established

Performing

- Team members are self-organizing and can make decisions
- Full engagement of team members
- Embrace differences w/higher empathy
- Delivering valuable results

Prerequisites for discussion

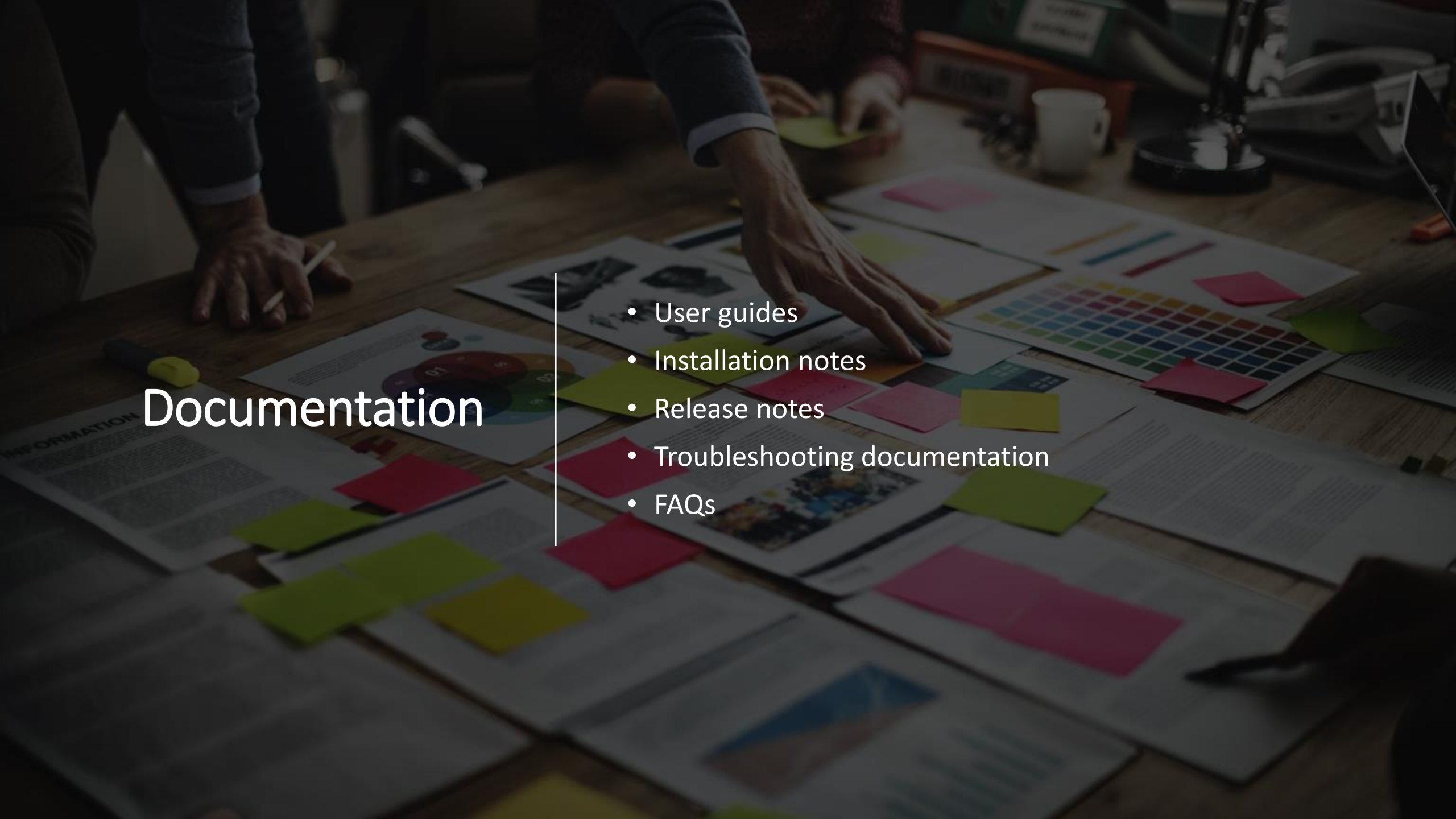


Project Tracker

Epic & Agile program

Supporting Documents &
ask for front-end test data

Ask the right questions



Documentation

- User guides
- Installation notes
- Release notes
- Troubleshooting documentation
- FAQs

End

- Technical Architecture
- Java & J2EE
- SQL or NoSQL
- Spring Frameworks
- DevOps Tools
- All Logs and Table Logs
- Jira & Confluence
- Kibana & Postman

Where to look for Information

- Documentation
- Jira or Bitbucket
- Swagger
- Business Case
- Release Plan
- Environments & Servers
- Website
- Journals
- Google Scholar
- Ask Architect and Manager

Thank You!

-Questions & Answers