TRAINING DAY14 REPORT:

Topic: GIT, Agile Methodologies, Trello, Jira, and Practical Implementation

Overview: The fourteenth day of the TR-102 training centered on mastering GIT, understanding agile methodologies, and familiarizing ourselves with tools like Trello and Jira. The session included an in-depth discussion on GIT commands, resolving merge conflicts, and practical exercises on GitHub and GitLab.

GIT :

Introduction to GIT:

- **Version Control System:** GIT is a distributed version control system that tracks changes in source code during software development.
- **Purpose:** Facilitates collaboration among developers and maintains a history of changes.

GIT Commands:

- **Push:** Uploads local repository content to a remote repository.

  git push origin main

- **Pull:** Fetches and integrates changes from a remote repository to the local repository.

  git pull origin main

- **Merge:** Combines changes from different branches into one.

  git merge feature-branch

- **Branch:** Creates a new branch to work on different features or fixes.

  git branch new-feature

Merge Conflicts:

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- **Definition:** Occurs when changes from different branches conflict with each other.
- **Resolution:** Requires manual editing of conflicting files to resolve discrepancies.

GitHub and GitLab Implementation:

- **Fork:** Creates a personal copy of another user's repository.

  git fork repository-url

- **Clone:** Creates a local copy of a repository.

  git clone repository-url

- **Push:** Sends local commits to a remote repository.

  git push origin branch-name

- **Merge:** Integrates changes from different branches.

  git merge branch-name

- **Pull Request:** Proposes changes to be merged into the main branch.

  git pull-request

Practical Implementation:

- Participants practiced forking, cloning, pushing, merging, and creating pull requests on GitHub and GitLab. They also resolved merge conflicts and ensured successful integration of changes.

Task Management Tools:

Trello and Jira:

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- <u>Trello:</u> A visual tool for organizing tasks and projects using boards, lists, and cards.
  - o **Usage:** Participants learned to create boards, add lists and cards, assign tasks, and track progress.
- <u>Jira:</u> A powerful tool for issue tracking and agile project management.
  - o **Usage:** Participants explored creating projects, user stories, sprints, and tracking tasks.

Conclusion:

Day 14 of Training TR-102 provided an extensive overview of GIT, covering essential commands, resolving merge conflicts, and practical implementation on GitHub and GitLab. The session also introduced agile methodologies and tools like Trello and Jira, equipping participants with the knowledge and skills to manage and collaborate on projects efficiently. Participants are now well-prepared to utilize these tools and methodologies in their future projects.

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