Azure Devops for Sprint Planning
Go to boards and then sprints
Select sprint menu and add sprint or select existing sprint
For new sprint, set the start and end dates
Go to boards and then backlogs
Open options menu
Select planning, turn parents and forecasting off
Can switch in progress items on or off
Drag and drop backlog items into sprints
https://learn.microsoft.com/en-us/azure/devops/boards/sprints/assign-work-sprint?view=azure-devops

Pushing to and Pulling from Repository
Local Repository:
Copy the repository cloning link
Clone using the link: git clone link
Pushing:
Make changes on your local machine
To update your local copy, commit changes: git commit -a
(Add -m and desired message if you want to)
Update changes in the remote repository: git push
Pulling:
Fetch changes from the remote repository: git pull
https://learn.microsoft.com/en-us/azure/devops/repos/git/pulling?view=azure-devops&tabs=visual-studio-2019

Configuration Control
Configure and maintain environments for hosting
Track and control changes
Read key/value pairs
Store all application configurations as well as pipeline configurations
For configuration tasks, provide connection, key, and value
Protect the system from improper changes
Approve and track all changes
https://www.browserstack.com/guide/configuration-management-in-devops
https://www.svenmalvik.com/azure-app-configuration-devops/

Designing a Relational Database
Organize items in rows and columns
Rows: Entries of related values

Columns: A single field storing an attribute
Primary key: Unique identifier for each entry
Foreign key: Relate rows in different data tables
ACID Compliance:
Atomicity - Every part of a transaction must succeed for a successful transaction
Consistency - The same rules and restrictions continue to apply to additional data
Isolation - Independent transactions and concurrency control
Durability - Permanent changes by successful transactions
Logical structure separate from physical structure
Factors to Consider: Accuracy, scalability, concurrency, reliability, performance
https://aws.amazon.com/relational-database/
https://www.oracle.com/database/what-is-a-relational-database/

SQL Databases
Actions:
Query data in existing databases
Retrieve or insert records
Update or delete records
Create new tables and databases
Create views and stored procedures
Set rules and restrictions for databases
Data Display:
Pair with server side scripting language
Design the site with HTML/CSS
Retrieve and display the ideal data on the page
Base on relational database management system
https://www.w3schools.com/sql/sql_intro.asp

mySQL
Has functions for strings, numbers, dates, and more advanced operations
Various data types in each category
Open source relational database management system
Connect to server with mySQL client
Log in with your credentials
SQL commands are not case sensitive
Client commands are not case sensitive
Column names are case sensitive
https://www.w3schools.com/mySQl/default.asp
https://www.tutorialspoint.com/mysql/index.htm
https://dev.mysql.com/doc/mysql-getting-started/en/

Node.js

Open source server environment

Memory efficient due to single thread asynchronous programming

Make dynamic content on pages

Perform operations on files

Collect data from form inputs

Perform operations on data

Files have tasks for specific events, such as accessing ports

Initiate files on the server to make them effective

Does not require waiting during file requests

https://www.w3schools.com/nodejs/nodejs_intro.asp

AWS Supported Databases

Automates the more time consuming tasks

Allows more time to focus on the development

Different types of databases for different use cases

Good security, performance, and availability

Match with modern microservices

Monitored by AWS to automate scaling and storage healing

Large selection of tools and extensions

Easy to manage workloads in the cloud

https://aws.amazon.com/products/databases/

https://aws.amazon.com/free/database/?trk=83add82a-8e52-4837-bc73-c323da62d78c&sc_channel=ps&s_kwcid=AL!4422!3!610000101558!p!!g!!aws%20database%20services&ef_id=CjwKCAjwyaWZBhBGEiwACslQo8KoRc4h7ZVQtLmb03kcL7lERvfAw29gvTc25gPRUn6k_vvU7KREhhoCQx8QAvD_BwE:G:s&s_kwcid=AL!4422!3!610000101558!p!!g!!aws%20database%20services

https://aws.amazon.com/products/databases/open-source-databases/