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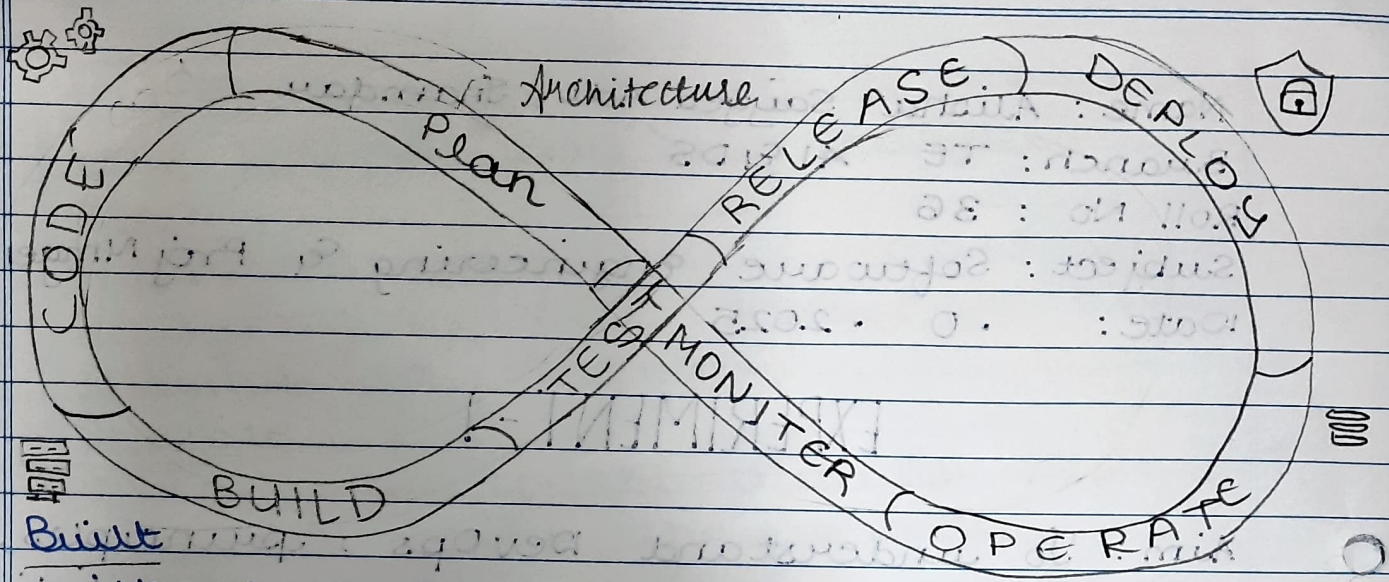
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EXPERIMENT - I

Aim : To understand DevOps , principles , practices & DevOps roles & responsibility

Theory :

- DevOps is the combination of 2 words , one is Development & other operations . It is a culture to promote development & operations collectively .
- DevOps helps increase organisation speed to deliver applications & services . It allows to serve customers better & compete more strongly .
- It can also be defined as a sequence of development & IT operations with better communication & collaboration .
- It is one of the most valuable business disciplines for enterprises or organisations . With help of DevOps , quality & speed improves with great extent .



- Build
Without DevOps, resource consumption is pre-defined with fixed software. With DevOps, cloud usage & resource sharing optimize "allocat" based on needs.
- Code
Version systems like Git help track changes, revert to previous versions & organise code efficiently for reuse.
- Test
Manual testing takes time, whereas automation speeds up the process, reducing deployment time & eliminating manual errors.
- Plan
Agile methodology aligns development & operations improving productivity & work. Organiz"
- Monitor
Continuous monitoring detects failure

tracks system health & uses tools like Splunk for log Analysis.

f. Deploy

Automated schedulers & cloud management platforms optimize deployment & provide insights via dashboards.

g. Operate

DevOps foster collaboration b/w development & operatⁿ teams throughout.

h. Release

Automatⁿ supports deployment but productⁿ releases often require manual interventⁿ to minimize customer impact.

Principles

- Collaboratⁿ
- Data based decision making
- Customer centric decⁿ making
- Constant improvement
- Responsibility throughout life cycle
- Automation
- Failure as learning opportunity

Advantages

- faster development & deployment
- Quick response to market changes
- Reduced software delivery time & costs
- Clearer product development & delivery

- Enhanced customer exp & "satisfact"
- simplified collab w cloud based tools
- encourages teamwork & improve productivity

Disadvantages

- shortage of skilled DevOps profess"
- high development costs
- difficult to integrate into "industry"
- lack of DevOps knowledge hinders "automat" projects

Conclusion

Hence, we've known what DevOps is & its advantages & disadvantages