

Your Project

Bias for Action and Experimentation

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September 29th 2020



What is this project ?

- An autonomous project on a problem or topic you like
- Work backwards from “potential” customers (Personas, Problems)
- 2-3 people Group size, your own AWS account
- Focus on Cloud Services, Infra, Backend and Architecture using AWS
- Not a programming module ; Do not focus software or front-end

Real world situation: Manage Cost, Experiment, leverage follow ups

End Goal: Managing and Building a Well-Architected Cloud Solution

Scenarios

A specific project idea in mind ? Deadline for idea submission is 1st Follow up

Type	Features Examples	Platform Examples
E-Commerce	Selling mass products to customers	Amazon, Concert tickets platform, ImmoScout24, Zalando
Media	Streaming and VoD, Students and Teachers profiles	MooC platform
Mobile	Banking application: Expenses Categories, Chatbots and Recommendations	Revolut, N26
SaaS	Multi-tenant Model, customer pricing per usage	DocuSign, Dropbox, Slack, VPN
Market Analytics	Data Engineering, Data Ingestion, Data Visualization	Zillow, Financial Times, Air pollution Analysis

Minimum requirements

- Build Serverless workloads (Api Gateway, Lambda, S3, etc...)
- Run Microservices with Docker and at least 1 orchestrator (EKS / ECS)
- Media management: Workloads with Images, Videos ...
- User management: Potential customers (Account, permissions, Data)
- Project Demo accessible over the internet (Website, API ...)
- Portable Project (Can share with others, Infrastructure as Code)
- Project documentation

Project Documentation

- Project context:
 - Who are your customers ?
 - Which problems are you solving ?
- Well-Architected Review – Report on each section
- Description of each component of your project (Explain Benefits, Considerations ...)
- Architecture Diagram of the workloads
- Cost Estimation (Assume few data points: Traffic, Volume of Data)
- Vision and Next steps:
 - What could be implemented
 - How it would look like in production

Cost Management

- Your Account = Your own responsibility ; Real World Situation
- 100\$ per Student with AWS Educate (up to 200-300\$ per group)
- Free Tier: Leverage the fact that you have up to 2-3 Free tiers (Example: 30 days free for a service, do not activate all at the same time)
- 2 months project = free tier is reinitialized each month (=2 free tier)
- Follow Cost Management best practices: Avoid IDLE resources, Right Size, Serverless, Cost Visibility, Notification & Automation. Check resources and WA pillar

Where to start ? Few Advice

1. Identity and Access Management fundamentals (Users, Policies)
2. Team work Management (How to collaborate ?)
3. Understand Cost, Free tier. Enforce Cost Management (Alerts, Budget, Tagging).
4. Agree on the Scenario : Define Problem you solve and Customers
5. Labs & Workshops + find your own resources
6. Decouple the project and the problems in multiple small solutions
7. Agree on the value of the architecture for each workload before building it
8. Start with the fundamentals (Databases, APIs, User Management, Team Collaboration)
9. Explore advanced features (Data Analytics, Chatbot, Data visualization, AI and Machine Learning)

Follow up

- Be prepared to guide me through your existing project
- Technical Discussion: Be ready for questions on your workloads
- We will discuss next steps and improvements

Successful Project - Deliverables

- Meet the delivery deadline: Week 16/11/2020
- Meet minimum requirements
- Deliver Accurate Documentation
- Present demos of project for Follow up and Delivery Sessions
- Ability to demonstrate **Well-Architected** Solution knowledges
 - Q/A during Follow up and Delivery Sessions
 - Workloads choices demonstrate understanding of Well-Architected concepts
- Project delivery with Infrastructure as Code (Portable)
- Team work (Everyone's voice matters)
- Manage your Cost (this is your credit card)

Don't

- Copy labs or workshops code
- Skip the Cost management
- Skip the team collaboration process and mechanisms
- Distribute this module content (Protected Content)
- Forget about any pillar of the Well-Architected
- Use Amplify (Request exception for specific case)

Resources

- Labs and Workshops
- Videos
- Whitepapers
- Blogs and Documentation

Thank you !

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