ALEXA…

A Journey Into Developing an Alexa Skill

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I'M NOT A DEVELOPER…

- …or I wasn't when I first started down this path. I think I'm an aspiring developer now? ¯_(ツ)_/¯
- Building an Alexa Skill helped:
  - Gain more knowledge into Amazon Web Services
    - Lambda
    - CloudWatch
    - Billing Alarms
    - Alexa Skills Kit
- I noticed my Python syntax and logic (in my case lack thereof) were getting better
- My ability to troubleshoot code on my own got better

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ALEXA…

- The voice service behind Amazon's Echo, Dot, and Tap hardware…!NEW! Echo Look & Echo Show
- Provides services like music, weather, news, ordering Pizza Hut…
- Allows for custom developed "skills" (not apps) to be developed by anyone
  - Published: Happy Days
    - Positive quote generator
  - Development: The Wharton Guide
    - Informational skill for The Wharton School

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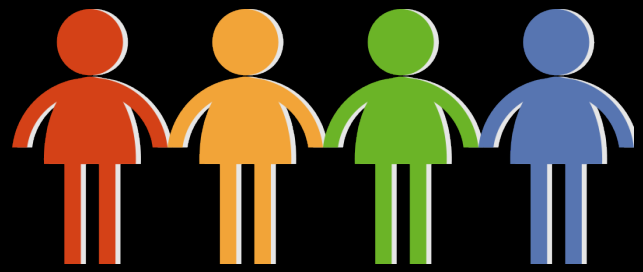
WHAT WILL I MAKE?

- If you're developing for an audience think about the following:
  - Will my skill provide a service?
  - Is it helpful?
  - Is it easy for a user to navigate through the voice interface?

- If you're making a skill for your own use or perhaps family, that's ok too! These skills can remain in Development and still function the way a regular skill does



RESOURCES

- What do I need to make this happen?
  - Amazon Developer Account https://developer.amazon.com
  - Amazon Web Services Account* https://aws.amazon.com
  - Alexa Skill Testing tool https://echosim.io
    - You no longer need an Amazon device to develop a skill… they're still fun to have though.
    - Log in ties to your Amazon account which ties #allofthethingz together

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BILLING ALARMS

- Used to notify you if your usage exceeds a certain dollar amount
- You can set the alert to send to your email using Amazon Web Services simple notification service (SNS)
- This allows you to keep an eye on things to ensure you're not racking up a huge bill
  - Since I was so new to this I didn't want a "surprise you owe one billion dollars moment"

LET'S GET R' DUN

- Languages supported
  - Python (3.6 available now), Node.js, C#, Java
- What are we using?
  - Lambda
    - Lambda Blueprints or start fresh!
  - CloudWatch
- Tutorials
  - Limited Python tutorials – womp womp! Contribute to open source
  - Color Skills Tutorial that works in conjunction with the Color Skills blueprint in Lambda (Python & Node.js)
- Amazon Developer Forums
  - Responsive community in regards to Alexa development
- ASK Developer Office Hours
  - Every Tuesday 1PM PST/4PM EST

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THE ANATOMY OF HAPPYDAYS.PY

- My GitHub: https://github.com/daheats/
- HappyDaysASK is the repository for this skill
  - HappyDays.py (Lambda Code)
  - HappyDaysIntents (JSON / ASK)
  - HappyDaysSampleUtterances.txt (ASK)
  - MoreQuotes.py (additional quotes for Lambda code)

PUTTING IT ALL TOGETHER

- We have our code in hand – set it to the side!
- Now we're going to go through and setup our Lambda function so the code we have has a place to live!

DEMO

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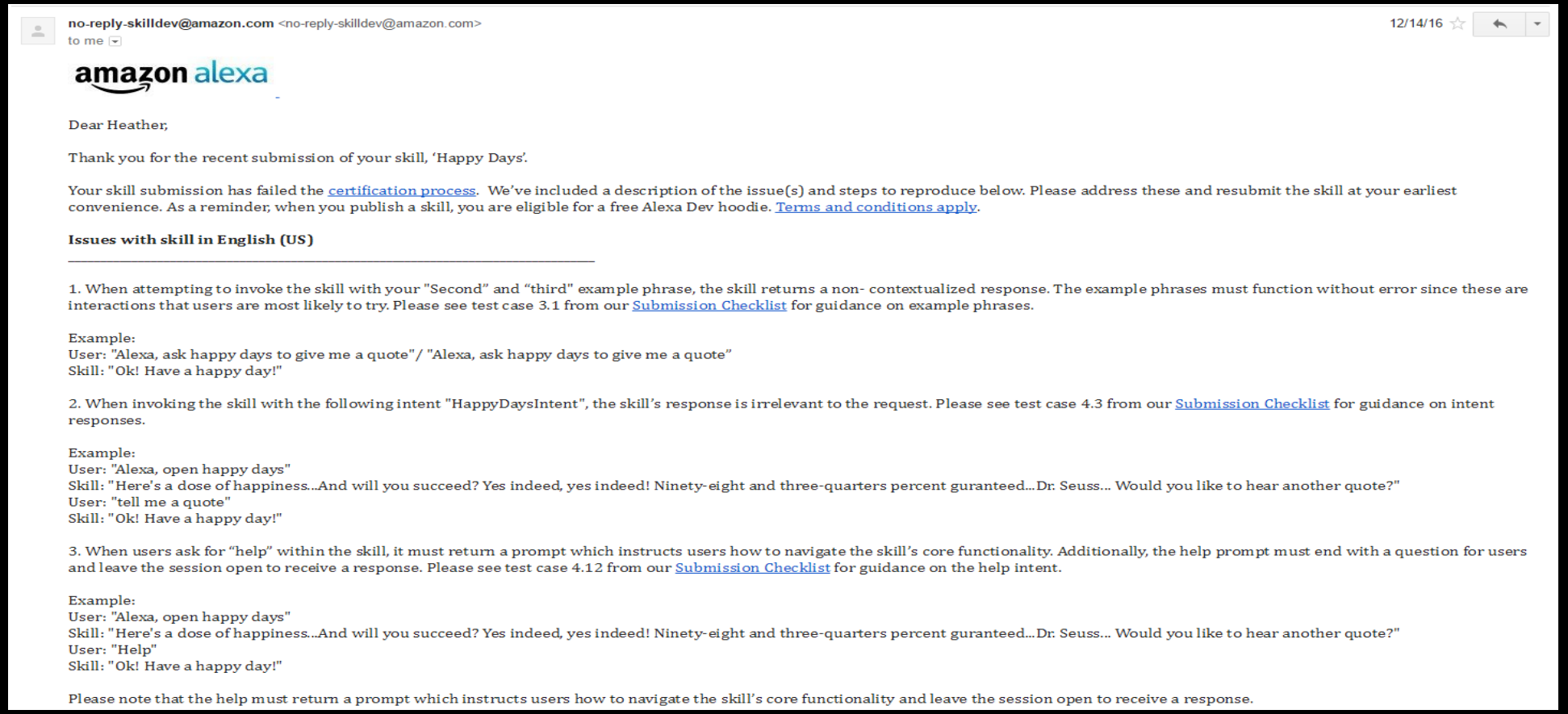
ALEXA SKILLS KIT

- Accessed via. https://developer.amazon.com/
- A collection of self service APIs and tools that make it quick and easy to create and develop Alexa skills
- This is how you're going to connect/marry your Lambda code to Alexa… YAY.

CODE REVIEWS BY ALEXA DEVELOPERS



no-reply-skilldev@amazon.com <no-reply-skilldev@amazon.com> 12/14/16
to me

amazon alexa

Dear Heather,

Thank you for the recent submission of your skill, 'Happy Days'.

Your skill submission has failed the certification process. We've included a description of the issue(s) and steps to reproduce below. Please address these and resubmit the skill at your earliest convenience. As a reminder, when you publish a skill, you are eligible for a free Alexa Dev hoodie. Terms and conditions apply.

Issues with skill in English (US)

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1. When attempting to invoke the skill with your "Second" and "third" example phrase, the skill returns a non- contextualized response. The example phrases must function without error since these are interactions that users are most likely to try. Please see test case 3.1 from our Submission Checklist for guidance on example phrases.

Example:
User: "Alexa, ask happy days to give me a quote"/ "Alexa, ask happy days to give me a quote"
Skill: "Ok! Have a happy day!"

2. When invoking the skill with the following intent "HappyDaysIntent", the skill's response is irrelevant to the request. Please see test case 4.3 from our Submission Checklist for guidance on intent responses.

Example:
User: "Alexa, open happy days"
Skill: "Here's a dose of happiness...And will you succeed? Yes indeed, yes indeed! Ninety-eight and three-quarters percent guranteed...Dr. Seuss... Would you like to hear another quote?"
User: "tell me a quote"
Skill: "Ok! Have a happy day!"

3. When users ask for "help" within the skill, it must return a prompt which instructs users how to navigate the skill's core functionality. Additionally, the help prompt must end with a question for users and leave the session open to receive a response. Please see test case 4.12 from our Submission Checklist for guidance on the help intent.

Example:
User: "Alexa, open happy days"
Skill: "Here's a dose of happiness...And will you succeed? Yes indeed, yes indeed! Ninety-eight and three-quarters percent guranteed...Dr. Seuss... Would you like to hear another quote?"
User: "Help"
Skill: "Ok! Have a happy day!"

Please note that the help must return a prompt which instructs users how to navigate the skill's core functionality and leave the session open to receive a response.

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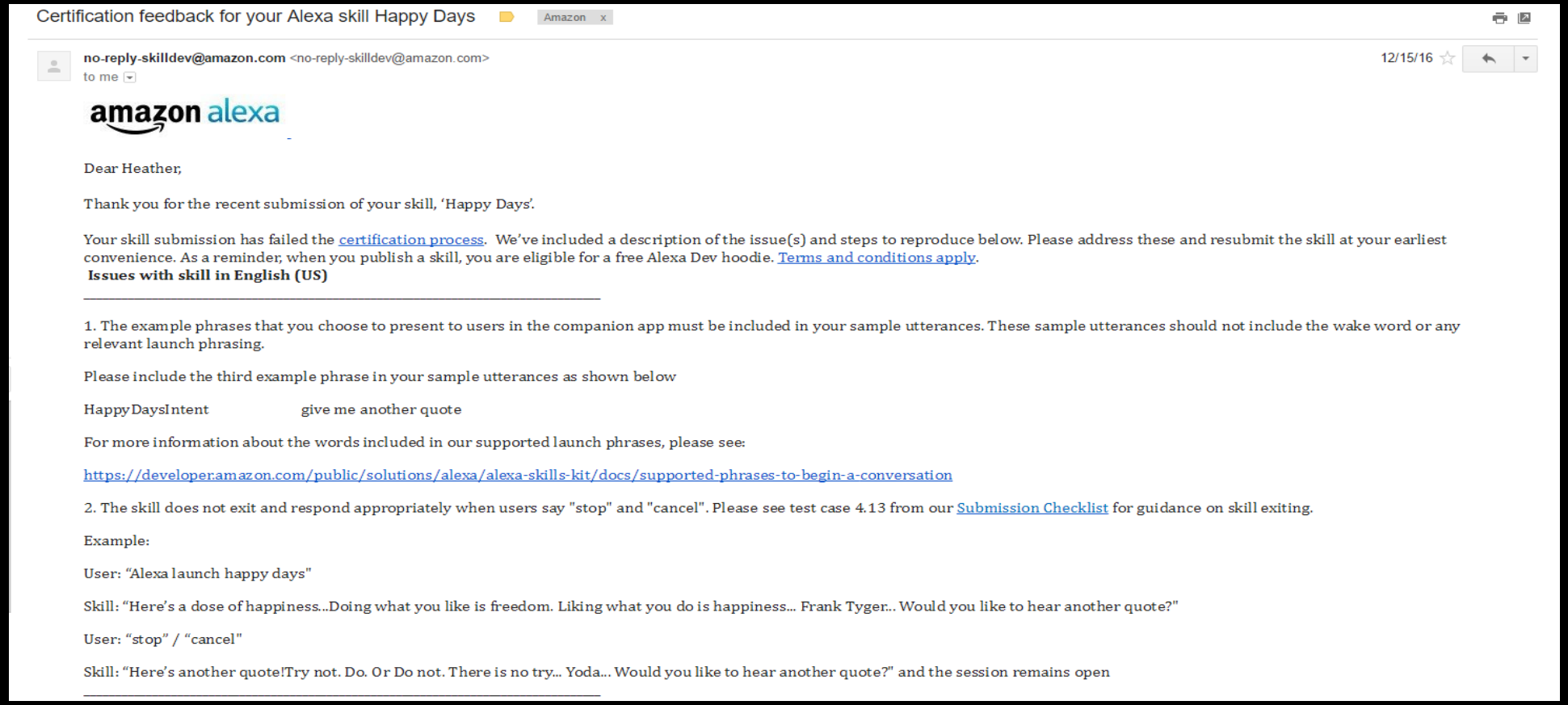

Certification feedback for your Alexa skill Happy Days

Amazon x

no-reply-skilldev@amazon.com <no-reply-skilldev@amazon.com>
to me

12/15/16

amazon alexa

Dear Heather,

Thank you for the recent submission of your skill, 'Happy Days'.

Your skill submission has failed the certification process. We've included a description of the issue(s) and steps to reproduce below. Please address these and resubmit the skill at your earliest convenience. As a reminder, when you publish a skill, you are eligible for a free Alexa Dev hoodie. Terms and conditions apply.

Issues with skill in English (US)

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1. The example phrases that you choose to present to users in the companion app must be included in your sample utterances. These sample utterances should not include the wake word or any relevant launch phrasing.

Please include the third example phrase in your sample utterances as shown below

HappyDaysIntent give me another quote

For more information about the words included in our supported launch phrases, please see:

https://developer.amazon.com/public/solutions/alexa/alexa-skills-kit/docs/supported-phrases-to-begin-a-conversation

2. The skill does not exit and respond appropriately when users say "stop" and "cancel". Please see test case 4.13 from our Submission Checklist for guidance on skill exiting.

Example:

User: "Alexa launch happy days"

Skill: "Here's a dose of happiness...Doing what you like is freedom. Liking what you do is happiness... Frank Tyger... Would you like to hear another quote?"

User: "stop" / "cancel"

Skill: "Here's another quote!Try not. Do. Or Do not. There is no try... Yoda... Would you like to hear another quote?" and the session remains open

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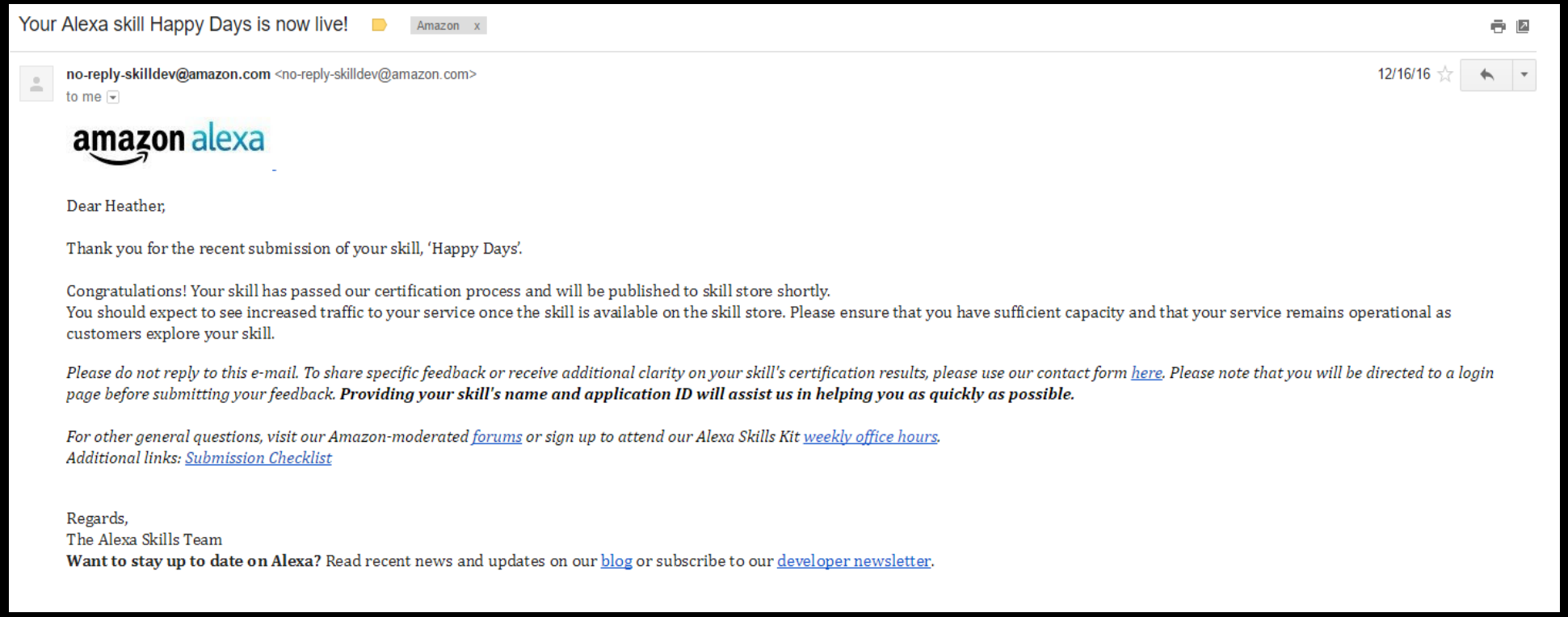

Your Alexa skill Happy Days is now live! Amazon x

no-reply-skilldev@amazon.com <no-reply-skilldev@amazon.com> 12/16/16

to me

amazon alexa

Dear Heather,

Thank you for the recent submission of your skill, 'Happy Days'.

Congratulations! Your skill has passed our certification process and will be published to skill store shortly.
You should expect to see increased traffic to your service once the skill is available on the skill store. Please ensure that you have sufficient capacity and that your service remains operational as customers explore your skill.

Please do not reply to this e-mail. To share specific feedback or receive additional clarity on your skill's certification results, please use our contact form here. Please note that you will be directed to a login page before submitting your feedback. ***Providing your skill's name and application ID will assist us in helping you as quickly as possible.***

For other general questions, visit our Amazon-moderated forums or sign up to attend our Alexa Skills Kit weekly office hours.
Additional links: Submission Checklist

Regards,
The Alexa Skills Team
Want to stay up to date on Alexa? Read recent news and updates on our blog or subscribe to our developer newsletter.

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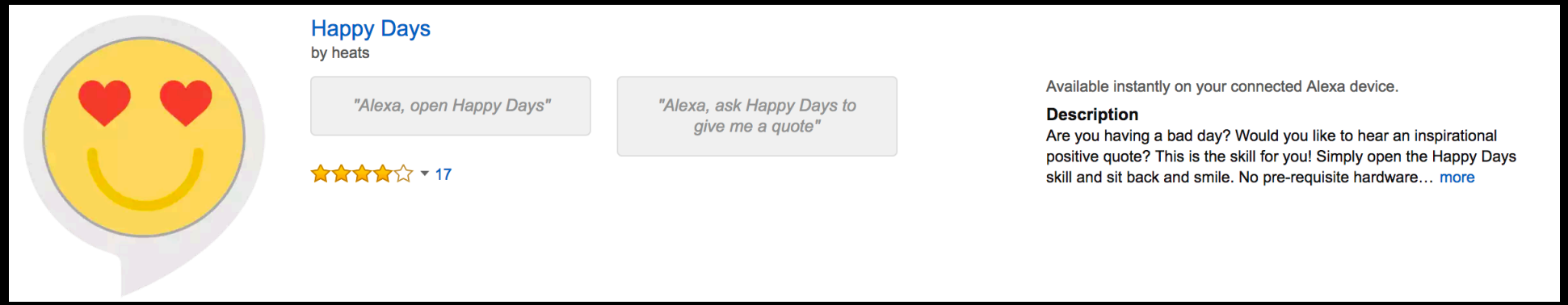
PUBLISHING

- Remember, you can keep your skill in development but…
- You can also publish it in the Alexa Skills store
- Receive feedback and ratings…
  - Remember with the good comes the bad…
  - Brace yourself!
  - Welcome constructive criticism. It can help you further your development and improve your skills



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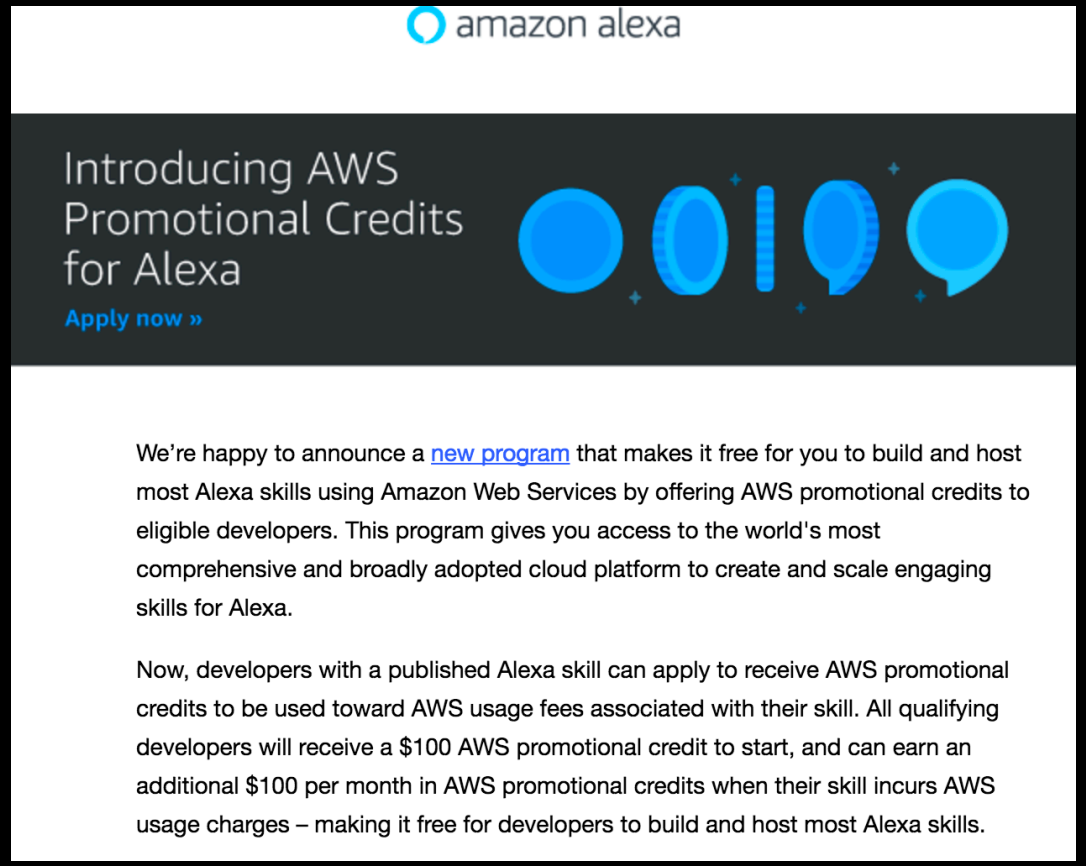
SWAG

- If you publish a skill in the Alexa Skills store you get Amazon Swag (must fill out form)
- Each month there's a different giveaway
  - T-shirts
  - Hoodies
- Let's see what the promotion for this month is…

AWS PROMOTIONAL CREDITS



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QUESTIONS?

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