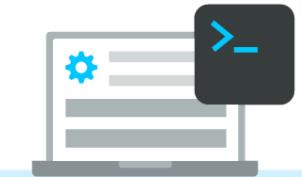


Programación de Skills con Alexa

Acceso a APIs Alexa

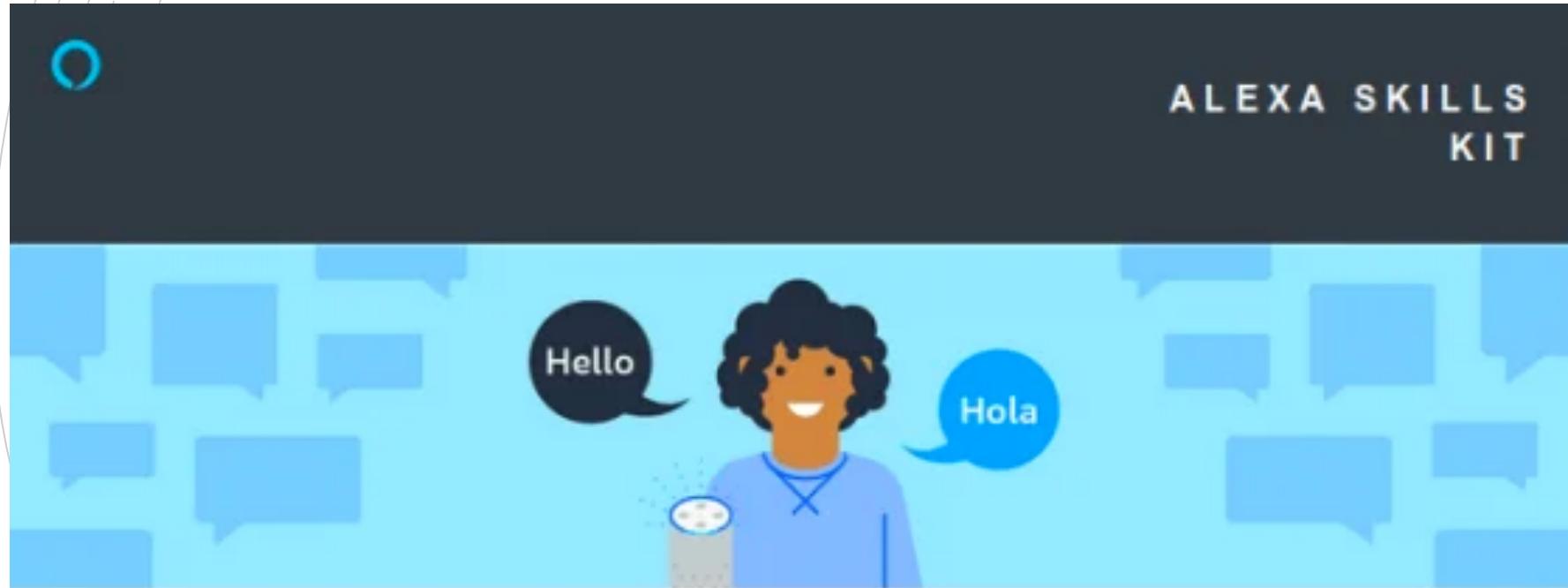
José Luis González Sánchez

@joseluisgonsan



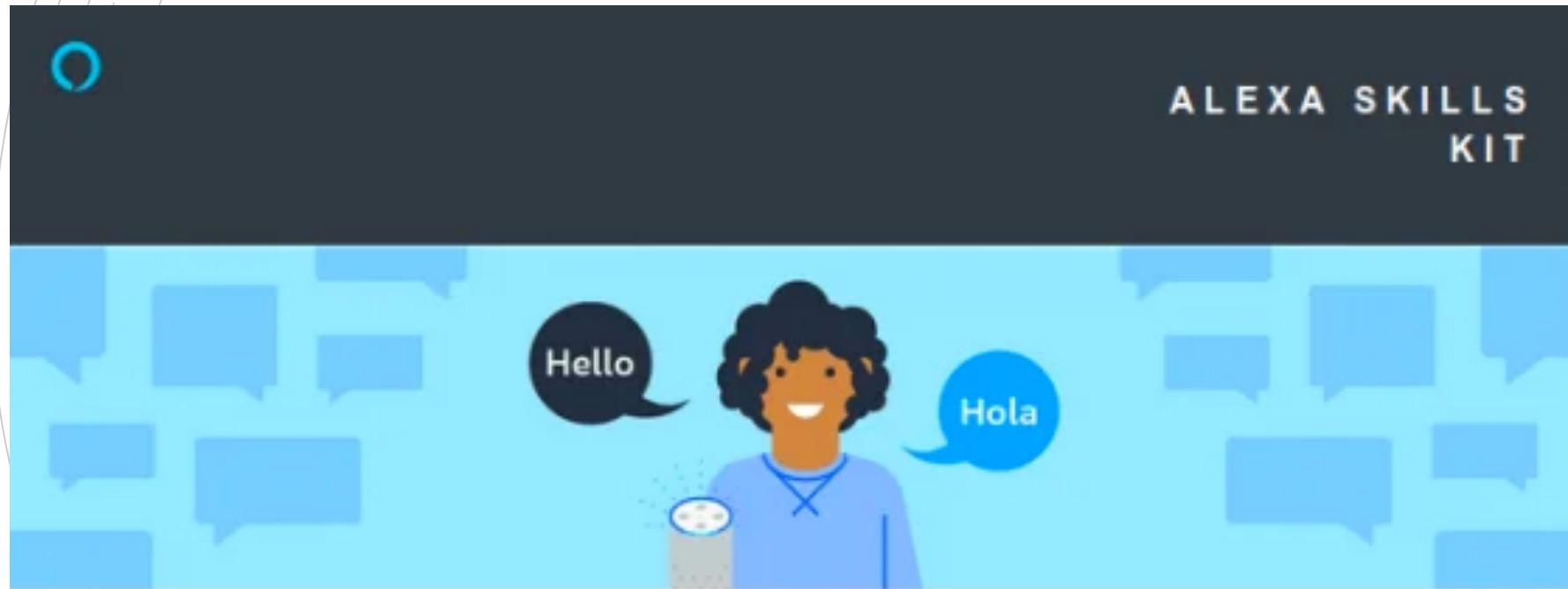
¿Qué vamos a aprender?

- Supongamos que queremos que la skill detecte el nombre de usuario
- O que detecte la zona horaria del dispositivo o su ubicación



¿Qué vamos a aprender?

- Nos basaremos en este tutorial
- <https://developer.amazon.com/es-ES/alexa/alexa-skills-kit/get-deeper/tutorials-code-samples/build-an-engaging-alexa-skill/module-6>



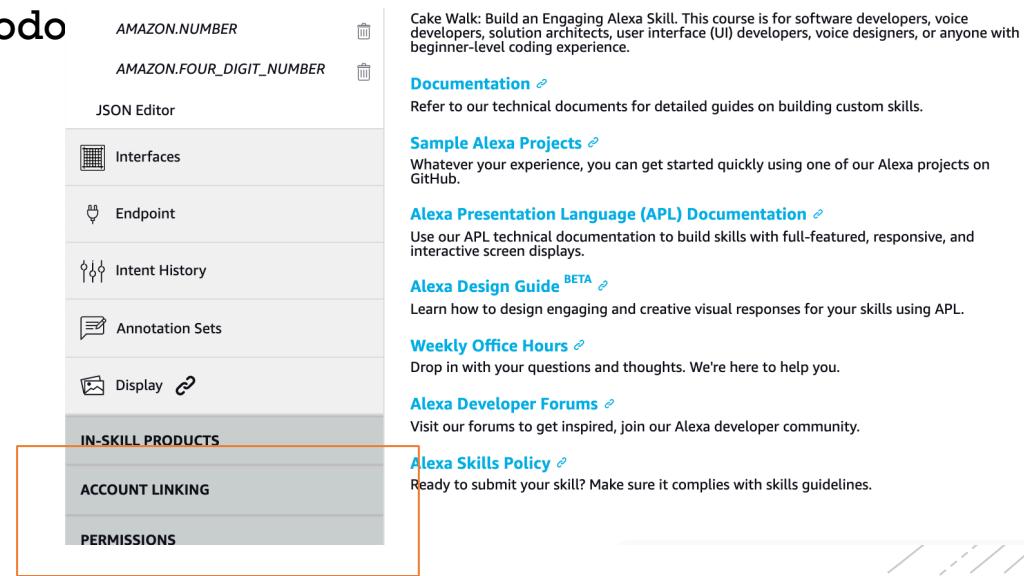
API ASK

- Trabajaremos directamente con el código del ejemplo anterior usando Alexa Settings API
- El trabajo para usar otras APIs es muy similar.
- Accederemos a los servicios para recuperar
 - Nombre de usuario
 - TimeZone para el cálculo de la fecha
- Antes de nada voy a refactorizar el código llevándome a ficheros a parte todos las funciones, hadler e interceptores a ficheros a parte.



Nombre de usuario

- He preparado algunas cadenas para que se le pasen de parámetro el nombre.
- El nombre de usuario se almacenara en la sesión y será persistente si no cambia, por lo que lo leeremos con la API y se almacena en su variable.
- Lo primero es darle permisos a nuestra aplicación:
 - `const GIVEN_NAME_PERMISSION = ['alexa::profile:given_name:read']; // Permiso de lectura`
 - Si los permisos existen, crear un cliente `serviceClientFactory` para acceder a ellos
 - Llamar a `getProfileGivenName()`;
 - Ver código fuente de `LaunchRequestHandler`
 - Finalmente en Build, le damos a permisos (abajo del todo)
 - Indicar que vamos a usar `.withApiClient`
`(new Alexa.DefaultApiClient()) en`
`Alexa.SkillBuilders.custom()`



Nombre de usuario

- Allí marcamos los siguientes:

Select an option ▾

CUSTOM

IN-SKILL PRODUCTS

ACCOUNT LINKING

PERMISSIONS

Permissions

Request users to access resources and capabilities. [?](#)
[Learn more.](#)

Device Address

Full Address [?](#)

Country/Region & Postal Code Only [?](#)

Customer Name

Full Name [?](#)

Given Name [?](#)

Also allows you to access the user's full name from their Profile when Alexa recognizes the user making the request.

Customer Email Address [?](#)

Customer Phone Number [?](#)

Lists Read [?](#)

Lists Write [?](#)



Obtener fecha

- Trabajamos de la misma manera:
 - Si los permisos existen, crear un cliente serviceClientFactory para acceder a ellos
 - Llamar a getSystemTimeZone();
- Probamos:

The screenshot shows the Alexa Skills Kit (ASK) developer console interface. At the top, it says "Skill testing is enabled in: Development". Below that, there are tabs for "Alexa Simulator", "Manual JSON", and "Voice & Tone". The "Manual JSON" tab is selected. It has dropdowns for "Spanish (ES)" and "Type or click and hold the mic". A microphone icon is also present.

In the main area, there is a blue speech bubble containing a welcome message: "Te doy la bienvenida otra vez! Quedan 342 días para que cumplas 36 años. Si quieres cambiar la fecha puedes decir, registra mi cumpleaños. O sólo dime la fecha directamente. ¿Quéquieres hacer?". Below this, there are two buttons: "iniciar cumple" and "iniciar feliz cumple".

On the left, there is a box labeled "<Audio only response>".

On the right, there is a "Skill Invocations" section showing "Viewing: 1 / 2". It displays the JSON Input and JSON Output for the skill invocation.

JSON Input 1:

```
1: {  
2:   "version": "1.0",  
3:   "session": {  
4:     "new": false,  
5:     "sessionId": "amzn1.echo-api.session.bbc3b3b4-0899-4e9",  
6:     "application": {  
7:       "applicationId": "amzn1.ask.skill.d6878c0e-6c6b-4a",  
8:     },  
9:     "attributes": {  
10:       "loaded": true,  
11:       "anno": "1985",  
12:       "timezone": "Europe/Madrid",  
13:       "mesID": 3,  
14:       "mesNombre": "marzo",  
15:       "dia": "17",  
16:       "sessionCounter": 49  
17:     },  
18:     "user": {  
19:       "userId": "amzn1.ask.account.AEP5WQKLK226UVGM7YBRC",  
20:     }  
21:   },  
22:   "context": {  
23:     "System": {  
24:       "application": {  
25:         "id": "amzn1.ask.skill.d6878c0e-6c6b-4a",  
26:         "name": "Alexa Skills Kit",  
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501:        "platform": "SKILL",  
502:        "interface": "SKILL",  
503:        "version": "1.0",  
504:        "namespace": "AMAZON",  
505:        "category": "SKILL",  
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508:        "platform": "SKILL",  
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510:        "version": "1.0",  
511:        "namespace": "AMAZON",  
512:        "category": "SKILL",  
513:        "type": "SKILL",  
514:        "languageCode": "es_ES",  
515:        "platform": "SKILL",  
516:        "interface": "SKILL",  
517:        "version": "1.0",  
518:        "namespace": "AMAZON",  
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521:        "languageCode": "es_ES",  
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534:        "type": "SKILL",  
535:        "languageCode": "es_ES",  
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538:        "version": "1.0",  
539:        "namespace": "AMAZON",  
540:        "category": "SKILL",  
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542:        "languageCode": "es_ES",  
543:        "platform": "SKILL",  
544:        "interface": "SKILL",  
545:        "version": "1.0",  
546:        "namespace": "AMAZON",  
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549:        "languageCode": "es_ES",  
550:        "platform": "SKILL",  
551:        "interface": "SKILL",  
552:        "version": "1.0",  
553:        "namespace": "AMAZON",  
554:        "category": "SKILL",  
555:        "type": "SKILL",  
556:        "languageCode": "es_ES",  
557:        "platform": "SKILL",  
558:        "interface": "SKILL",  
559:        "version": "1.0",  
560:        "namespace": "AMAZON",  
561:        "category": "SKILL",  
562:        "type": "SKILL",  
563:        "languageCode": "es_ES",  
564:        "platform": "SKILL",  
565:        "interface": "SKILL",  
566:        "version": "1.0",  
567:        "namespace": "AMAZON",  
568:        "category": "SKILL",  
569:        "type": "SKILL",  
570:        "languageCode": "es_ES",  
571:        "platform": "SKILL",  
572:        "interface": "SKILL",  
573:        "version": "1.0",  
574:        "namespace": "AMAZON",  
575:        "category": "SKILL",  
576:        "type": "SKILL",  
577:        "languageCode": "es_ES",  
578:        "platform": "SKILL",  
579:        "interface": "SKILL",  
580:        "version": "1.0",  
581:        "namespace": "AMAZON",  
582:        "category": "SKILL",  
583:        "type": "SKILL",  
584:        "languageCode": "es_ES",  
585:        "platform": "SKILL",  
586:        "interface": "SKILL",  
587:        "version": "1.0",  
588:        "namespace": "AMAZON",  
589:        "category": "SKILL",  
590:        "type": "SKILL",  
591:        "languageCode": "es_ES",  
592:        "platform": "SKILL",  
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596:        "category": "SKILL",  
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601:        "version": "1.0",  
602:        "namespace": "AMAZON",  
603:        "category": "SKILL",  
604:        "type": "SKILL",  
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608:        "version": "1.0",  
609:        "namespace": "AMAZON",  
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612:        "languageCode": "es_ES",  
613:        "platform": "SKILL",  
614:        "interface": "SKILL",  
615:        "version": "1.0",  
616:        "namespace": "AMAZON",  
617:        "category": "SKILL",  
618:        "type": "SKILL",  
619:        "languageCode": "es_ES",  
620:        "platform": "SKILL",  
621:        "interface": "SKILL",  
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623:        "namespace": "AMAZON",  
624:        "category": "SKILL",  
625:        "type": "SKILL",  
626:        "languageCode": "es_ES",  
627:        "platform": "SKILL",  
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630:        "namespace": "AMAZON",  
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632:        "type": "SKILL",  
633:        "languageCode": "es_ES",  
634:        "platform": "SKILL",  
635:        "interface": "SKILL",  
636:        "version": "1.0",  
637:        "namespace": "AMAZON",  
638:        "category": "SKILL",  
639:        "type": "SKILL",  
640:        "languageCode": "es_ES",  
641:        "platform": "SKILL",  
642:        "interface": "SKILL",  
643:        "version": "1.0",  
644:        "namespace": "AMAZON",  
645:        "category": "SKILL",  
646:        "type": "SKILL",  
647:        "languageCode": "es_ES",  
648:        "platform": "SKILL",  
649:        "interface": "SKILL",  
650:        "version": "1.0",  
651:        "namespace": "AMAZON",  
652:        "category": "SKILL",  
653:        "type": "SKILL",  
654:        "languageCode": "es_ES",  
655:        "platform": "SKILL",  
656:        "interface": "SKILL",  
657:        "version": "1.0",  
658:        "namespace": "AMAZON",  
659:        "category": "SKILL",  
660:        "type": "SKILL",  
661:        "languageCode": "es_ES",  
662:        "platform": "SKILL",  
663:        "interface": "SKILL",  
664:        "version": "1.0",  
665:        "namespace": "AMAZON",  
666:        "category": "SKILL",  
667:        "type": "SKILL",  
668:        "languageCode": "es_ES",  
669:        "platform": "SKILL",  
670:        "interface": "SKILL",  
671:        "version": "1.0",  
672:        "namespace": "AMAZON",  
673:        "category": "SKILL",  
674:        "type": "SKILL",  
675:        "languageCode": "es_ES",  
676:        "platform": "SKILL",  
677:        "interface": "SKILL",  
678:        "version": "1.0",  
679:        "namespace": "AMAZON",  
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681:        "type": "SKILL",  
682:        "languageCode": "es_ES",  
683:        "platform": "SKILL",  
684:        "interface": "SKILL",  
685:        "version": "1.0",  
686:        "namespace": "AMAZON",  
687:        "category": "SKILL",  
688:        "type": "SKILL",  
689:        "languageCode": "es_ES",  
690:        "platform": "SKILL",  
691:        "interface": "SKILL",  
692:        "version": "1.0",  
693:        "namespace": "AMAZON",  
694:        "category": "SKILL",  
695:        "type": "SKILL",  
696:        "languageCode": "es_ES
```

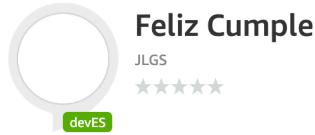
Probando

- Es importante que si pides permisos, en la tarjeta de la aplicación los puedas cambiar y aceptar como usuario de esta. Para ello puedes usar el cliente de Alexa web
 - <https://alexa.amazon.es/spa/index.html?#cards>

The screenshot shows the Alexa web interface with the 'Cumpleaños' skill card. On the left, a sidebar lists navigation options: Inicio, En reproducción, Música, vídeos y libros, Listas, Recordatorios y alarmas, Skills, Dispositivos, Sugerencias, Configuración, Ayuda y comentarios, and a session closure link. The main content area displays the 'Cumpleaños' card with the message "¡Te doy la bienvenida otra vez! Quedan 342 días para que cumplas 36 años. Si dices la fecha directamente. ¿Quéquieres hacer?". Below this, a 'Comentarios por voz' section shows a transcription of a user saying "Alexa ha oido: 'iniciar feliz cumple'" and asks if Alexa has done what was requested (Sí or No). A 'Eliminar la entrada' button is also present. To the right, a second card for the 'Feliz Cumple' skill is shown, asking for permission to access the user's name ("Nombre") and containing a 'Actualizar permisos' button.

Probando

Feliz Cumple



Feliz Cumple

JLGS

★★★★★

devES

PRUEBA A DECIR

"Alexa open hello world"

"hello"

ACERCA DE ESTA SKILL

Sample Full Description

IDIOMAS COMPATIBLES

español (ES)

DETALLES DE LA SKILL

José Luis González Sánchez.

DESACTIVAR SKILL

CONFIGURACIÓN

Configuración de skills

PERMISOS

Has concedido los siguientes permisos:

X Nombre

GESTIONAR PERMISOS

Has concedido los siguientes permisos:

X Nombre

Permisos de Skills

Feliz Cumple está solicitando lo siguiente:

Nombre

Deja que esta Skill acceda al nombre asociado a tu cuenta.

GUARDAR PERMISOS

X

ON/OFF

CIP Virgen de Gracia

Probando

Skill testing is enabled in: **Development** Skill I/O Device Display Device Log

Alexa Simulator Manual JSON Voice & Tone

Spanish (ES)

iniciar feliz cumple

Te doy la bienvenida otra vez José Luis! José Luis Quedan 342 días para que cumplas 36 años. Si quieres cambiar la fecha puedes decir, registra mi cumpleaños. O sólo dime la fecha directamente. ¿Quéquieres hacer?

Skill Invocations | Viewing: 1 / 2

JSON Input 1

```
1 {  
2   "version": "1.0",  
3   "session": {  
4     "new": false,  
5     "sessionId": "amzn1.echo-api.session.ba062d90-ecca-4ba",  
6     "application": {  
7       "applicationId": "amzn1.ask.skill.d6878c0e-6c6b-4a",  
8     },  
9     "attributes": {  
10       "loaded": true,  
11       "anno": "1985",  
12       "timezone": "Europe/Madrid",  
13       "mesID": 3,  
14       "mesNombre": "marzo",  
15       "dia": "17",  
16       "sessionCounter": 50  
17     },  
18     "user": {  
19       "userId": "amzn1.ask.account.AEP5WQKLK226UVGM7YBRC",  
20       "permissions": {  
21         "consentToken": "eyJ0eXAiOiJKV1QiLCJhbGciOiJSU",  
22       }  
23     }  
24   },  
25 }
```

JSON Output 1

```
1 {  
2   "body": {  
3     "version": "1.0",  
4     "response": {  
5       "type": "_DEFAULT_RESPONSE",  
6     },  
7     "sessionAttributes": {  
8       "anno": "1985",  
9       "mesID": 3,  
10      "mesNombre": "marzo",  
11      "dia": "17",  
12      "sessionCounter": 51  
13    },  
14    "userAgent": "ask-node/2.8.0 Node/v10.19.0"  
15  }  
16 }
```

Otras consideraciones

- Es bueno que recuerdes mirad la documentación por si cambian las cosas
 - <https://developer.amazon.com/es-ES/docs/alexa/custom-skills/request-customer-contact-information-for-use-in-your-skill.html#>
 - <https://developer.amazon.com/es/blogs/alexa/post/c2ba44fa-4bd8-4b49-925d-29dbc0330ble/personalize-your-alexa-skill-with-customer-specific-time-zones-and-measurements-using-the-alexa-settings-api#>
- Hay muchas APIS y cada una aporta algo, pero no lo podemos abarcar todo. Te recomiendo que inicies distintos proyectos con distintas plantillas para conocer más funcionalidad.
 - También he usado si verás en el fichero de localización Alexa Sound Library para reproducir sonidos internos: <https://developer.amazon.com/es-ES/docs/alexa/custom-skills/ask-soundlibrary.html>
 - Además he usado también Emociones/Entonación en el texto usando Alexa Speechcon: <https://developer.amazon.com/es-ES/docs/alexa/custom-skills/speechcon-reference-interjections-spanish.html> usando Speech Synthesis Markup Language (SSML) en nuestros mensajes de texto: <https://developer.amazon.com/es-ES/docs/alexa/custom-skills/speech-synthesis-markup-language-ssml-reference.html>
 - Todo esto y algo más de refactorización para ser un poco más organizado y te sirvan los módulos para futuros proyectos. Versión 4.5
- Revisa siempre la documentación oficial
- Poco a poco iré mejorando



Algo más

- Otra posible variación es hacer recordatorios con la API Reminders, que pararía todo lo que está haciendo Alexa para lanzar el recordatorio: <https://developer.amazon.com/es-ES/docs/alexa/smapi/alexa-reminders-api-reference.html> o usar la API Proactive Events, menos intrusiva (nos avisa pero no para la ejecución de una skill, si no usa un aviso luminoso o sonido y hasta que no le preguntemos): <https://developer.amazon.com/es-ES/docs/alexa/smapi/proactive-events-api.html>. También he usado Amazon Search Query para capturar como quiere que sea el recordatorio (capturar texto libre): <https://developer.amazon.com/en-US/docs/alexa/custom-skills/slot-type-reference.html>
- Puedes ver un ejemplo de su uso en Alexa06



Algo más

- Algo importante es poder acceder acceder a APIs externas, por ejemplo servicios REST. Esto es sencillo. En ejemplo Alexa07, se puede ver como accedo a una de ellas para saber fechas de cumpleaños. Para ello usamos las biblioteca de JS como son Axios o Node Fecth usando Progresive Response, es decir, que se pueda hacer una tarea de fondo mientras atendemos otras peticiones.
- Para ello como ejemplo, ya que no tenemos otros servicios ahora trabajaremos con <https://query.wikidata.org/> de Wikipedia
- Otros REST:
 - <https://developer.amazon.com/es/blogs/alexa/post/4a46da08-d1b8-4d8e-9277-055307a9bf4a/alexa-skill-recipe-update-call-and-get-data-from-external-apis>
 - <https://vicenteguzman.mx/2019/12/01/como-consumir-un-servicio-externo-con-axios-en-alexa/>
- En este punto es recomendable manejar los Logs
 - <https://developer.amazon.com/es/blogs/alexa/post/37daldc8-08a1-4a65-a964-762517f3ddd7/why-console-log-is-your-friend>
 - <https://stackoverflow.com/questions/54073509/access-amazon-alexa-console-console-log-content>



Algo más

▼ Skill Code
 ▼ lambda
 configuracion.js
 index.js
 interceptors.js
 localisation.js
 mis_funciones.js
 package.json
 util.js

mis_funcio

60
61 ▾
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CloudWatch > Grupos de registros > /aws/lambda/d6878c0e-6c6b-4a1c-8533-07d7887efb96 > 2020/04/11/[102]c865f7b0ca6e4682bd817dac4f12fa26

Probar CloudWatch Logs Insights

CloudWatch Logs Insights le permite realizar búsquedas y analizar sus registros a través de un nuevo lenguaje de consulta diseñado especialmente. Haga clic [aquí](#) para probarlo. Si desea obtener más información, lea el [blog de AWS](#) o consulte [nuestra documentación](#).

Expandir todo Fila Texto   

Filtrar eventos

todos 10-04-2020 (09:34:07) ▾

Hora (UTC +00:00)	Mensaje
2020-04-11 09:34:07	2020-04-11T09:34:07.000Z 6dd1db22-0540-46f4-aba7-c600a0230299 INFO Incoming request: {"version": "1.0", "session": {"new": false, "id": "102"}, "text": "¿Quién es el presidente de Francia?", "language": "es", "offset": 0, "len": 33}, {"version": "1.0", "session": {"new": false, "id": "102"}, "text": "¿Quién es el presidente de Francia?", "language": "es", "offset": 0, "len": 33}
2020-04-11 09:34:07	2020-04-11T09:34:07.887Z 6dd1db22-0540-46f4-aba7-c600a0230299 INFO Outgoing response: {"outputSpeech": {"type": "SSML", "ssml": " <s>¿Quién es el presidente de Francia?</s> <s>El presidente de Francia es Emmanuel Macron.</s> "}}
2020-04-11 09:34:07	END RequestId: 6dd1db22-0540-46f4-aba7-c600a0230299
2020-04-11 09:34:07	REPORT RequestId: 6dd1db22-0540-46f4-aba7-c600a0230299 Duration: 4.00 ms Billed Duration: 100 ms Memory Size: 512 MB Max Memory Size: 512 MB
2020-04-11 09:34:44	START RequestId: 164c3a2c-cf38-4327-b29a-3badaa0df652 Version: 102
2020-04-11 09:34:44	2020-04-11T09:34:44.925Z 164c3a2c-cf38-4327-b29a-3badaa0df652 INFO Incoming request: {"version": "1.0", "session": {"new": false, "id": "102"}, "text": "¿Quién es el presidente de Francia?", "language": "es", "offset": 0, "len": 33}, {"version": "1.0", "session": {"new": false, "id": "102"}, "text": "¿Quién es el presidente de Francia?", "language": "es", "offset": 0, "len": 33}
2020-04-11 09:34:44	2020-04-11T09:34:44.927Z 164c3a2c-cf38-4327-b29a-3badaa0df652 INFO https://query.wikidata.org/sparql?query=SELECT%20D
2020-04-11 09:34:51	2020-04-11T09:34:51.474Z 164c3a2c-cf38-4327-b29a-3badaa0df652 INFO {"head": {"vars": ["human", "humanLabel", "picture", "date"]}}
2020-04-11 09:34:51	2020-04-11T09:34:51.477Z 164c3a2c-cf38-4327-b29a-3badaa0df652 INFO { human: { type: 'uri', value: 'http://www.wikidata.org/en/.../Q4503' } }
2020-04-11 09:34:51	2020-04-11T09:34:51.477Z 164c3a2c-cf38-4327-b29a-3badaa0df652 INFO { human: { type: 'uri', value: 'http://www.wikidata.org/en/.../Q4503' } }
2020-04-11 09:34:51	2020-04-11T09:34:51.477Z 164c3a2c-cf38-4327-b29a-3badaa0df652 INFO { human: { type: 'uri', value: 'http://www.wikidata.org/en/.../Q4503' } }

2020-04-11 09:34:07	2020-04-11T09:34:07.000Z 6dd1db22-0540-46f4-aba7-c600a0230299 INFO Incoming request: {"version": "1.0", "session": {"new": false, "id": "102"}, "text": "¿Quién es el presidente de Francia?", "language": "es", "offset": 0, "len": 33}, {"version": "1.0", "session": {"new": false, "id": "102"}, "text": "¿Quién es el presidente de Francia?", "language": "es", "offset": 0, "len": 33}
2020-04-11 09:34:07	2020-04-11T09:34:07.887Z 6dd1db22-0540-46f4-aba7-c600a0230299 INFO Outgoing response: {"outputSpeech": {"type": "SSML", "ssml": " <s>¿Quién es el presidente de Francia?</s> <s>El presidente de Francia es Emmanuel Macron.</s> "}}
2020-04-11 09:34:07	END RequestId: 6dd1db22-0540-46f4-aba7-c600a0230299
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2020-04-11 09:34:44	2020-04-11T09:34:44.927Z 164c3a2c-cf38-4327-b29a-3badaa0df652 INFO https://query.wikidata.org/sparql?query=SELECT%20D
2020-04-11 09:34:51	2020-04-11T09:34:51.474Z 164c3a2c-cf38-4327-b29a-3badaa0df652 INFO {"head": {"vars": ["human", "humanLabel", "picture", "date"]}}
2020-04-11 09:34:51	2020-04-11T09:34:51.477Z 164c3a2c-cf38-4327-b29a-3badaa0df652 INFO { human: { type: 'uri', value: 'http://www.wikidata.org/en/.../Q4503' } }
2020-04-11 09:34:51	2020-04-11T09:34:51.477Z 164c3a2c-cf38-4327-b29a-3badaa0df652 INFO { human: { type: 'uri', value: 'http://www.wikidata.org/en/.../Q4503' } }
2020-04-11 09:34:51	2020-04-11T09:34:51.477Z 164c3a2c-cf38-4327-b29a-3badaa0df652 INFO { human: { type: 'uri', value: 'http://www.wikidata.org/en/.../Q4503' } }

Logs: Amazon CloudWatch

Media storage: S3 [0/5GB]

Docs: Alexa Hosted Skills

José Luis González Sánchez.

CIFP Virgen de Gracia

APL

- APL, es la API o conjunto de librerías para crear interacción multimodal, es decir, voz y táctil en dispositivos show. Es otra de las posibles mejoras. Pero siempre teniendo en cuenta que la voz es la protagonista

- <https://developer.amazon.com/en-US/docs/alexa/alexa-presentation-language/understand-apl.html>
- <https://developer.amazon.com/en-US/alexa/alexa-skills-kit/get-deeper/tutorials-code-samples/build-a-multimodal-alexa-skill>

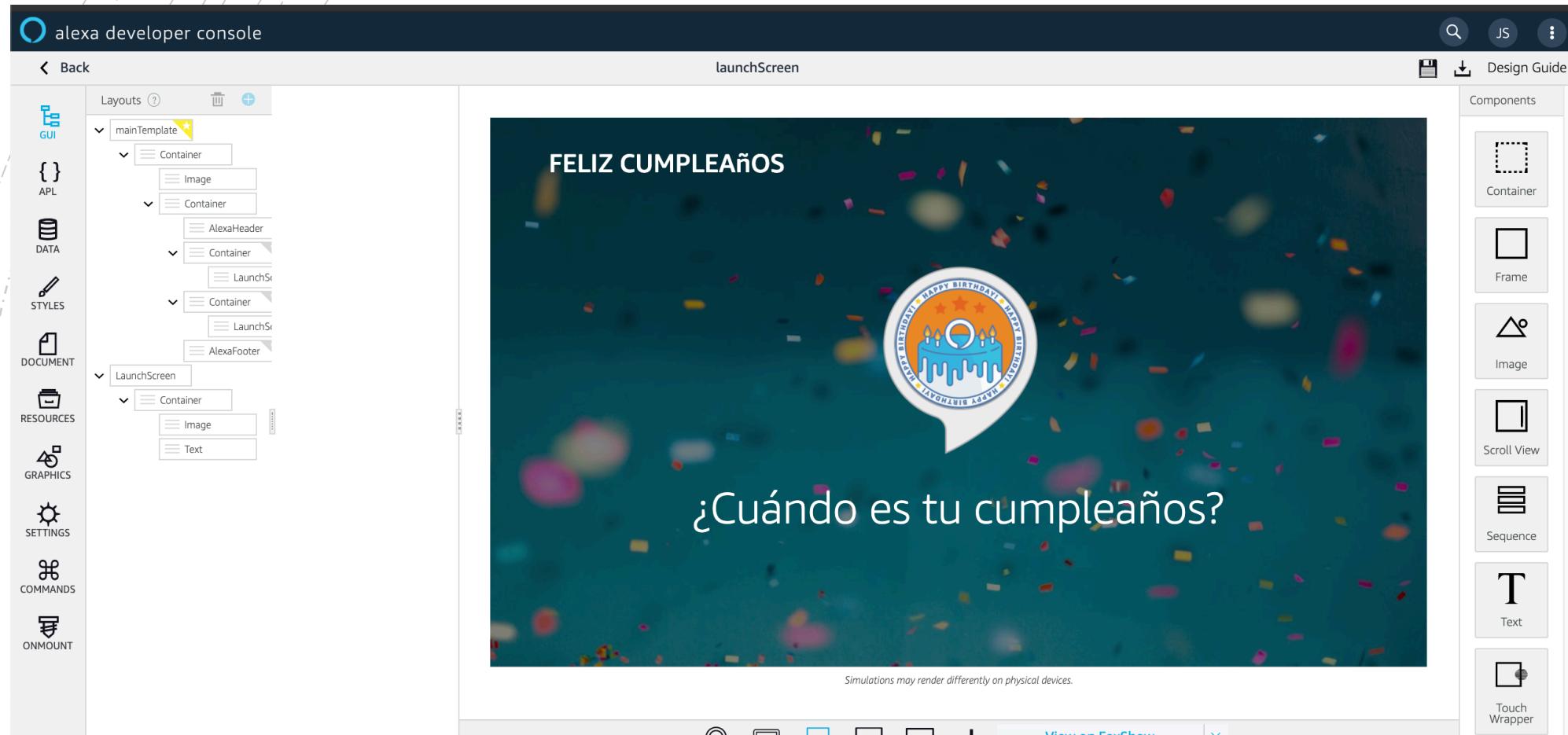
The screenshot shows the developer console interface for creating an Alexa skill. On the left, a sidebar lists various sections: AMAZON.FOUR_DIGIT_NUMBER, AMAZON.SearchQuery, JSON Editor, Interfaces (which is highlighted in blue), Endpoint, Intent History, Annotation Sets, Display, IN-SKILL PRODUCTS, ACCOUNT LINKING, and PERMISSIONS.

The main content area has two main sections:

- Custom Interface Controller:** Described as providing the ability to control and receive inputs from a connected device. A toggle switch is shown as turned on.
- Alexa Presentation Language:** Described as allowing skill developers to use custom visual templates along with voice on Echo Show, Echo Spot, Fire TV and Fire tablet devices. A toggle switch is shown as turned on. Below this, a list of supported Viewport Profiles is shown, with "Hub Round *", "Hub Landscape *", and "TV Fullscreen *" checked, while "Hub Landscape, Small" is unchecked.

APL

- Posteriormente podemos pulsar la opción Display de la pantalla Build y empezar a diseñar siguiendo una de las plantillas por defecto



APL

- Puedes ver ejemplo en Alexa09, donde incluso se ha usando interacción táctil.

Skill testing is enabled in: Development

Skill I/O Device Display Device Log

Alexa Simulator Manual JSON Voice & Tone

Spanish (ES) Type or click and hold the mic

para

Ha habido un problema de comunicación con la Skill que has pedido

iniciar feliz cumple

<Short audio>

¡Felicitaciones! ¡Hoy es tu cumpleaños José Luis!.
¡Hoy cumples 20 años!

¡Felicidades! ¡Hoy es tu cumpleaños José Luis!. ¡Hoy cumples 20 años! También hoy cumplen: Ruth Berglund, Diana Quijano, Margie Kinsky, Donald Pilon y Jennifer Morrison. Si quieres cambiar la fecha puedes decir, registra mi cumpleaños. También puedes crear un recordatorio para cuando cumplas o conocer los cumpleaños de hoy. ¿Quéquieres hacer?



José Luis González Sánchez.

APL

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Untitled Template*

Components

GUI

{} APL

DATA

STYLES

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RESOURCES

GRAPHICS

SETTINGS

COMMANDS

ONMOUNT

```
1 {  
2   "listData": {  
3     "type": "object",  
4     "properties": {  
5       "config": {  
6         "backgroundImage": "https://i.imgur.com/Y21B9Y5.jpg",  
7         "title": "Hoy cumplen años:",  
8         "skillIcon": "https://i.imgur.com/ZJJtcRT.png",  
9         "hintText": "Alexa, ¿cuánto queda para mi cumpleaños?"  
10      },  
11      "list": {  
12        "listItems": [  
13          {  
14            "human": {  
15              "type": "uri",  
16              "value": "http://www.wikidata.org/entity/Q17319618"  
17            },  
18            "picture": {  
19              "type": "uri",  
20              "value": "http://commons.wikimedia.org/wiki/Special:  
21            },  
22            "date_of_birth": {  
23              "datatype": "http://www.w3.org/2001/XMLSchema#dateTime",  
24              "type": "literal",  
25              "value": "1991-05-21T00:00:00Z"  
26            },  
27            "humanLabel": {  
28              "xml:lang": "en",  
29              "type": "literal",  
30              "value": "Nikita Presnyakov"  
31            },  
32            "place_of_birthLabel": {  
33              "xml:lang": "en",  
34              "type": "literal",  
35              "value": "London"  
36            }  
37          },  
38        }  
39      }  
40    }  
41  }  
42 }  
43 }
```

Hoy cumplen años:

1. Nikita Presnyakov
1991-05-21T00:00:00Z

2. Maria Mindzenti
1898-05-21T00:00:00Z

3. Lola Lane
1906-05-21T00:00:00Z

Alexa, ¿cuánto queda para mi cumpleaños?

Simulations may render differently on physical devices.

View on FoxShow

Skill testing is enabled in: **Development**

Skill I/O Device Display Device Log

Alexa Simulator **Manual JSON** Voice & Tone

Spanish (ES) Type or click and hold the mic

años . Carmen Carrera cumple años . Barbara Rachwalska cumple años . Judy Nunn cumple años y Hideki Saijo cumple años . Quizá ahora puedes preguntar por cuántos días quedan hasta tu cumpleaños. Y recuerda que también puedes configurar un recordatorio para no olvidarlo. ¿Qué quieres hacer ahora? Puedes intentar tocar las fotos para obtener más información. O quizás quieres preguntar cuantos días quedan para tu cumpleaños. ¿Qué otra cosa te gustaría hacer?

<User Touch Event>

Carmen Carrera nació hace 35 años en Elmwood Park. Intenta tocar en otras fotos para obtener más información. Sino, puedes ver cuántos días quedan para tu cumpleaños o crear un recordatorio para no olvidarlo. ¿Qué quieres hacer?

Cumpleaños de Hoy

1. Dylan Penn
29 años

2. Carmen Carrera
35 años

3. Barbara Rachwalska
98 años

Prueba a decir: "Alexa, ¿quién cumple años hoy?"

- Finalmente si no queremos usar toda la web, podemos hacer uso de ASK-CLI para desarrollar en nuestro entorno preferido
 - <https://developer.amazon.com/es-ES/docs/alexa/smapi/quick-start-alexa-skills-kit-command-line-interface.html>
 - <https://developer.amazon.com/es/blogs/alexa/post/b9f927e2-2fd4-4e02-8600-0285eb4a2b95/alexa-hosted-skills-extends-to-the-ask-cli-to-accelerate-your-skill-building-efforts>
 - <https://developer.amazon.com/es-ES/docs/alexa/ask-toolkit/get-started-with-the-ask-toolkit-for-visual-studio-code.html>
 - <https://www.youtube.com/watch?v=-HCF0Zr7efg>
 - Ya Puedes elegir el método que quieras ☺. Yo me quedo con la web por simplicidad y poder programar en cualquier lado, aunque hago mi código en VS. CODE y luego lo pego.



Conclusiones y Ejercicio

- Ahora puedes hacer un proceso de diálogo más complejo y sofisticado almacenando resultados
- Ejercicio: Listar los módulos de un alumno, una vez almacenado su titulación y curso sabiendo el nombre del usuario.
- Código de ejemplo tutorial Amazon: <https://github.com/germanviscuso/ASKVideoSeries/tree/master/05>
- Como he ido mejorando la Skill Feliz Cumple: <https://github.com/joseluisgs/skill-demos>
- Código de la Skill Informática: <https://github.com/joseluisgs/informatica-skill>
- Tutoriales seguidos:
 - <https://youtu.be/Mix4ImoAi30>

