APPS FOR GLASS
FUNCTIONAL REQUIREMENTS
12/17/14

App concepts are described within as user stories that have been scoped into phases:

Phase I:
What AKQA can commit to delivering by February 2, 2015.

Phase I + Dependencies:
What may be be delivered pending the availability of data, APIs or partnership requirements.

Phase 2+:
Features to be concepted and delivered as updates.

Risks, assumptions, issues and dependencies are noted with each concept.
- Note: all apps developed with US English for vocal recognition

FISHING

Partner: Hooked Up   **Audience:** Avid Enthusiasts

A suite of angler companion apps to log every catch, map and share Hotspots, connect with your fishfinder and stay informed of current conditions and rules.

Feature 1 - Scout

As an angler, I would like to capture & share where I've caught fish, when and under what conditions.

- Create a new Catch with the voice command "OK Glass, log this Catch."   *Phase 1*
- Create a record of the Catch location including environmental data:
    - Date
    - Time
    - Weather Conditions
    - GPS Coordinates
- Add the Catch record to a user-defined Hotspot (ie, Trinity Lakes, Lower Falls)
- Sync Hotspots with Google My Maps
- Optionally add a photo
- Optionally add a voice note to each record (*ie, size, bait, tackle, location notes*)
- Share my Catch record, photo, and note to installed social networks and email.

As an angler, I would like to return to or share a Hotspot.
- Access Hotspots with the voice command "OK Glass, show my Hotspots"
- Display detail cards for each Hotspot, organized by proximity
- See a Hotspot's details:
    - Location Photo
    - Location name
    - Address

- - Number of Catches in this Hotspot (area tbd)
    - Last date visited
  - Get directions to each Hotspot

As an angler, I would like to see my Catch locations within a Hotspot with the voice command "OK Glass, show my Catches"
  - While near a Hotspot, see Catch locations in space within a specific distance.
  - Be guided towards a Catch location around me within a specific distance.
    - Azimuth
    - Distance
  - See each Catch record within a Hotspot

  - After logging a Catch, see the fish species most common to a Hotspot   **Phase 1 + Dependencies**
  - Tag the Catch with a selected fish species
  - Be alerted of local fishing rules and regulations, while in a Hotspot

  - See Hotspots and Catches shared within a Google+ circle   **Phase 2**

Feature 2 - Fisheye

As an angler, I would like to connect Glass to my sonar fishfinder:

  - Connect to the sonar fishfinder with the voice command "OK Glass, show my fishfinder"   **Phase 2**
  - See my specific sonar FishFinder details in Glass, connected via Bluetooth
    - Bottom Structure
    - Depth
    - Temperature
    - Water pH
    - Salinity

Feature 3 - FishID

As an angler, I would like to identify the species, size and estimated weight of a Catch from a photo:

- After taking a photo of a catch, use software to recognize species and estimate size and weight
- Validate the recognition
- Add the details gathered to the Catch record

<div style="text-align:right">Phase 2</div>

Dependencies:

- Google Maps
- GPS
- Google+ API
- Third-party API providing content (eg common fish species)
  - Fish species

<div style="text-align:right">Phase 1</div>

- Sonar hardware partner SDK
- Third-party service to identify fish based on an image
- Third-party service to get local regulations
- Third-party service to get weather/solunar calendar

<div style="text-align:right">Phase 2</div>

Content:

Content necessary for this app may include a source of common fish species with imagery, fishing reports specific to an area, local marine and governmental information including protected areas, fishing limits, size requirements, open or closed season for each species and prohibited equipment.
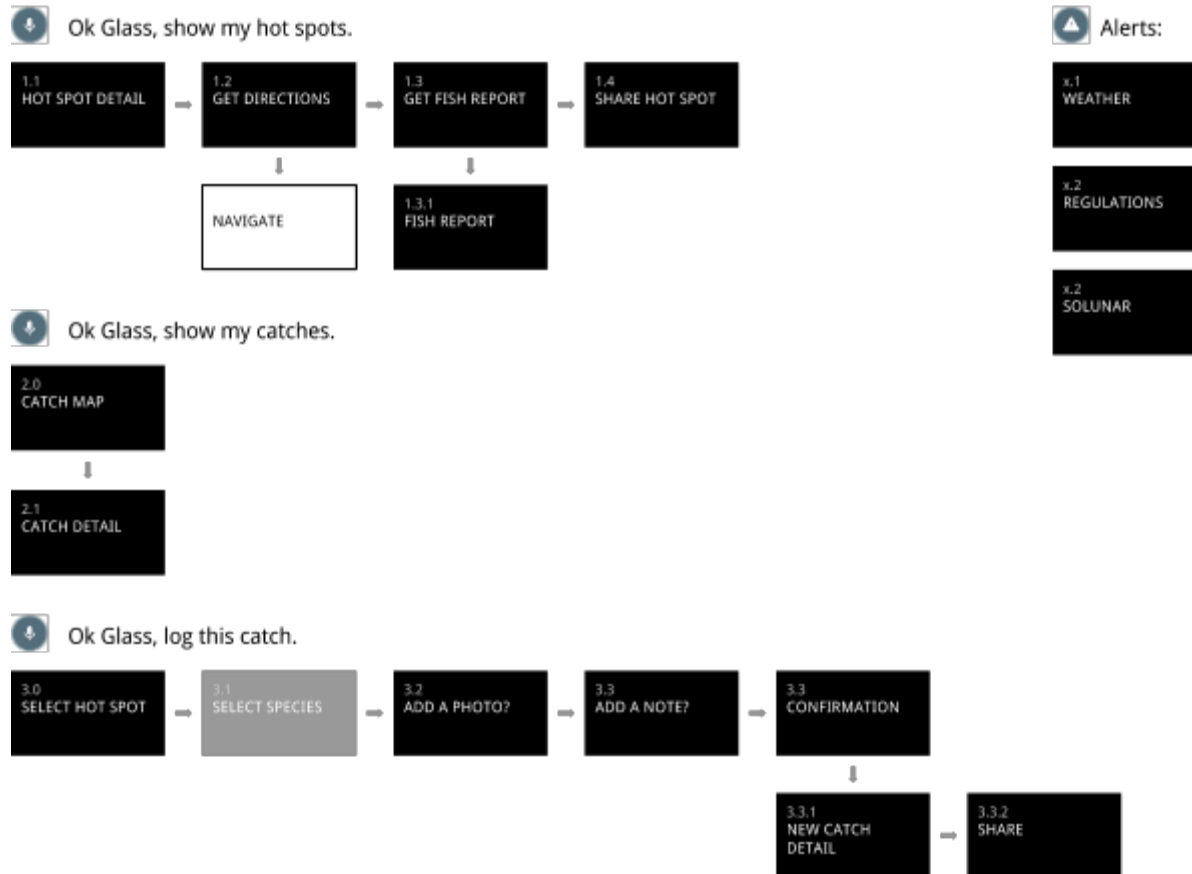
R/A/I/D:

- Google to provide guidelines/info for fish finder api (sonar)
- Google to provide guidelines/info for Google-developed fish ID (fish recognition)
- Need specific sonar fishfinder SDK

- Partner/Hooked-up to clarify that information in the app is good/helpful, so AKQA can determine what information we need to find (wind, weather, temperature, moon phase, tide/flow rate, time, date, lat/long, water conditions, fish common to an area, ph)
- Assumptions:
  - There will be no internet connection available during the actual fishing activity, content will be downloaded to device.

Open Questions:
- Given there are existing weather apps on Glass, would we want to include weather alerts on the app?
- What are the sources of environmental information including fish reports, regulations, conditions and fish species?
- What is the determinate area of a Hotspot?
- What are possible ways to identify a fish from a photograph?
- Who will provide the hardware for sonar integration for phase 2?

Fishing Phase I User Flow:

🎤 Ok Glass, show my hot spots.

| 1.1 HOT SPOT DETAIL | → | 1.2 GET DIRECTIONS | → | 1.3 GET FISH REPORT | → | 1.4 SHARE HOT SPOT |

NAVIGATE

1.3.1 FISH REPORT

🎤 Ok Glass, show my catches.

2.0 CATCH MAP

2.1 CATCH DETAIL

🎤 Ok Glass, log this catch.

| 3.0 SELECT HOT SPOT | → | 3.1 SELECT SPECIES | → | 3.2 ADD A PHOTO? | → | 3.3 ADD A NOTE? | → | 3.3 CONFIRMATION |

| 3.3.1 NEW CATCH DETAIL | → | 3.3.2 SHARE |

🔺 Alerts:

x.1 WEATHER

x.2 REGULATIONS

x.2 SOLUNAR

HIKING

Easily track and share your favorite routes, learn about the environment around you and be sure to get back before the sun goes down.

As a hiker I would like see a map of the route I am planning to hike:

- See a trail map using the voice command "OK Glass, show my route."
- View points of interest along the route created by the user and their AllTrails friends
  - POI Name
  - POI Photo
  - POI Distance
  - User who created
- Be alerted of decisions in wayfinding:
  - Pick a trail to take in the area:
    - Difficulty
    - Approx. Completion time
    - Overall Rating (stars)
    - Features (waterfall, scenic views)
    - Photos
  - View environmental data of each route:
    - Elevation
    - Time
    - Distance

As a hiker, I would like to trace my current route:

- Start creating a new route with the voice command "OK Glass, trace my route."
  - Capture GPS Coordinates of starting point and breadcrumb the path followed.
  - Create a route map overlay for a Google or partner map

Phase 1

- - Pause and resume tracing
  - Capture environmental data with each route:
    - Elevation
    - Time
    - Distance
- End route tracing with the voice command "OK Glass, stop tracing."
- Assign data to each route:
  - Difficulty
  - Overall Rating (stars)
  - Features (waterfall, scenic views)
- Share my route to AllTrails

As a hiker, I would like to add waypoints to my Route:

- Add a new Waypoint on a route with the voice command "OK Glass, add a waypoint."
  - Name the new Waypoint
  - Optionally add a photo to the Waypoint
  - Optionally add a voice note (assuming no internet connection)
- Sync Waypoint to Google Maps/Earth/other services/devices

As a hiker, I would like to get relevant alerts and notifications:

- Be notified of sundown, environmental factors (inclement weather, high tide, etc.), or specific time remaining until an appointment or time set by the user.

Phase 1 + Dependencies

Dependencies:

- All Trails API (*requires partner discussion and contract / costs agreed*)
- Weather API or app
- Google Maps API
- Google Views API (https://www.google.com/maps/views/home?gl=us if Google Views API is different than the Google Maps API)

Phase 1

- GPS Access
- Sunset time source: (*Can be calculated on device using date & gps data*)
  http://www.esrl.noaa.gov/gmd/grad/solcalc/main.js
  http://www.esrl.noaa.gov/gmd/grad/solcalc/sunrise.html

Content:

Content for the hiking app will be provided by AllTrails in the form of trail maps including distance, time, difficulty and rating, map overlays and waypoint information / photos. This content may be supplemented with POI data and curated photos from Google Maps.
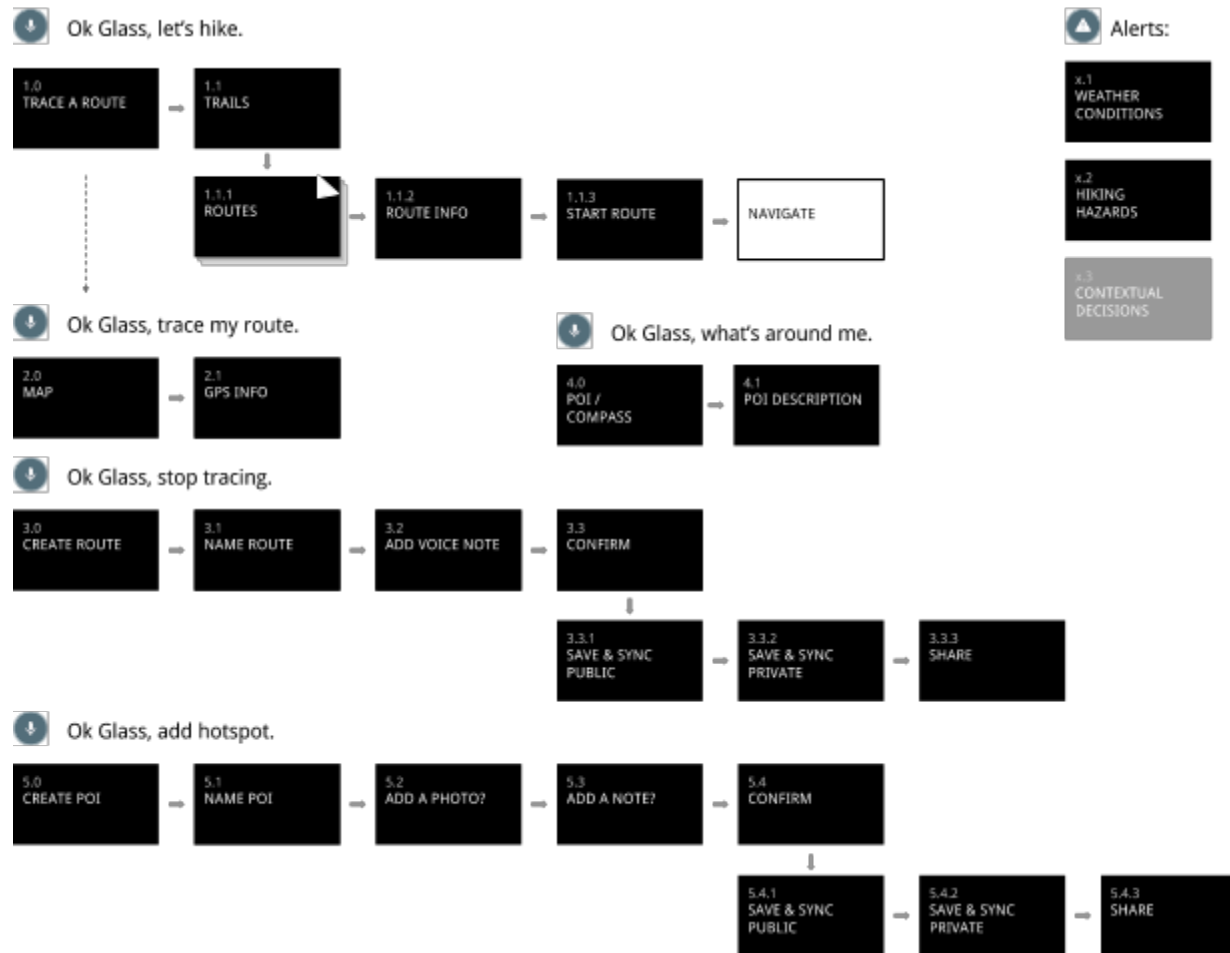
R/A/I/D:

- Some POI data may be available from Google and AllTrails, though other partnerships may be necessary.
- Assume the user has done some planning ahead of time in choosing a location or trail and added data to the device in preparation.
- Assume no internet connection during hike. Data will be saved locally and uploaded when connected.

Open Questions:

- Given there are existing weather apps on Glass, would we want to include weather alerts on the app?
- What are the sources of environmental information including route features, POI, elevation, difficulty, etc.

Hiking Phase I User Flow:

⬇ Ok Glass, let's hike.

| 1.0 TRACE A ROUTE | → | 1.1 TRAILS |

| 1.1.1 ROUTES | → | 1.1.2 ROUTE INFO | → | 1.1.3 START ROUTE | → | NAVIGATE |

△ Alerts:

| x.1 WEATHER CONDITIONS |

| x.2 HIKING HAZARDS |

| x.3 CONTEXTUAL DECISIONS |

⬇ Ok Glass, trace my route.

| 2.0 MAP | → | 2.1 GPS INFO |

⬇ Ok Glass, what's around me.

| 4.0 POI / COMPASS | → | 4.1 POI DESCRIPTION |

⬇ Ok Glass, stop tracing.

| 3.0 CREATE ROUTE | → | 3.1 NAME ROUTE | → | 3.2 ADD VOICE NOTE | → | 3.3 CONFIRM |

| 3.3.1 SAVE & SYNC PUBLIC | → | 3.3.2 SAVE & SYNC PRIVATE | → | 3.3.3 SHARE |

⬇ Ok Glass, add hotspot.

| 5.0 CREATE POI | → | 5.1 NAME POI | → | 5.2 ADD A PHOTO? | → | 5.3 ADD A NOTE? | → | 5.4 CONFIRM |

| 5.4.1 SAVE & SYNC PUBLIC | → | 5.4.2 SAVE & SYNC PRIVATE | → | 5.4.3 SHARE |

Partner: National Geographic   **Audience:** US Tourists

Experience a new city with Glass as your personal guide, learn fun facts about points of interest around you and share your favorite places with your Google+ circles.

As a tourist in the US, I would like to be guided through an unfamiliar city:

- Set preferences and filters on Glass in an options menu, or on a mobile device (*ie, museums, shopping, food & drink*)   Phase 1
- Select a city with the voice command "OK Glass, show me the city"
- ~~Optionally concatenate a timebox ("OK Glass, show me the city in 2 hours")~~
- See available Tours in this city: (*eg, NYC for Kids, Brooklyn, Street Art*)
    - Tour Name
    - Tour Photo
    - Tour Snippet
    - Total Distance
    - Number of POIs included
    - Estimated time to complete
- ~~If a timebox is added, limit the number of POIs in each tour to the time available~~
- Tap to see a scrollable list of all POIs in the tour.
- Tap the Tour to see the individual POIs within the tour:
    - POI Name
    - POI Photo
    - POI Description
    - POI Phone Number
    - ~~Accessible subway lines~~
    - POI Type (*ie, museum, shopping*)
- Get directions to each POI

- Be alerted of facts & relevant information while in specific geographic areas (while approaching a POI)

- Create a POI   **Phase 2**
  - Photo, panorama or video
  - Voice note
  - Place tag
  - POI name
  - Environmental data
- Add my POIs to a Tour
- Share my POIs and Tours to my Google+ circles

Content:

Tours for each city and the included POIs will be gathered from a partnership with National Geographic's app CityGuides. This content will need to be made available at no charge, as each guide currently costs $4.99 to unlock. Additional partnerships may be necessary as this app currently only contains one US city. Appropriate cities and content will be guided by AKQA content strategy.

R/A/I/D:

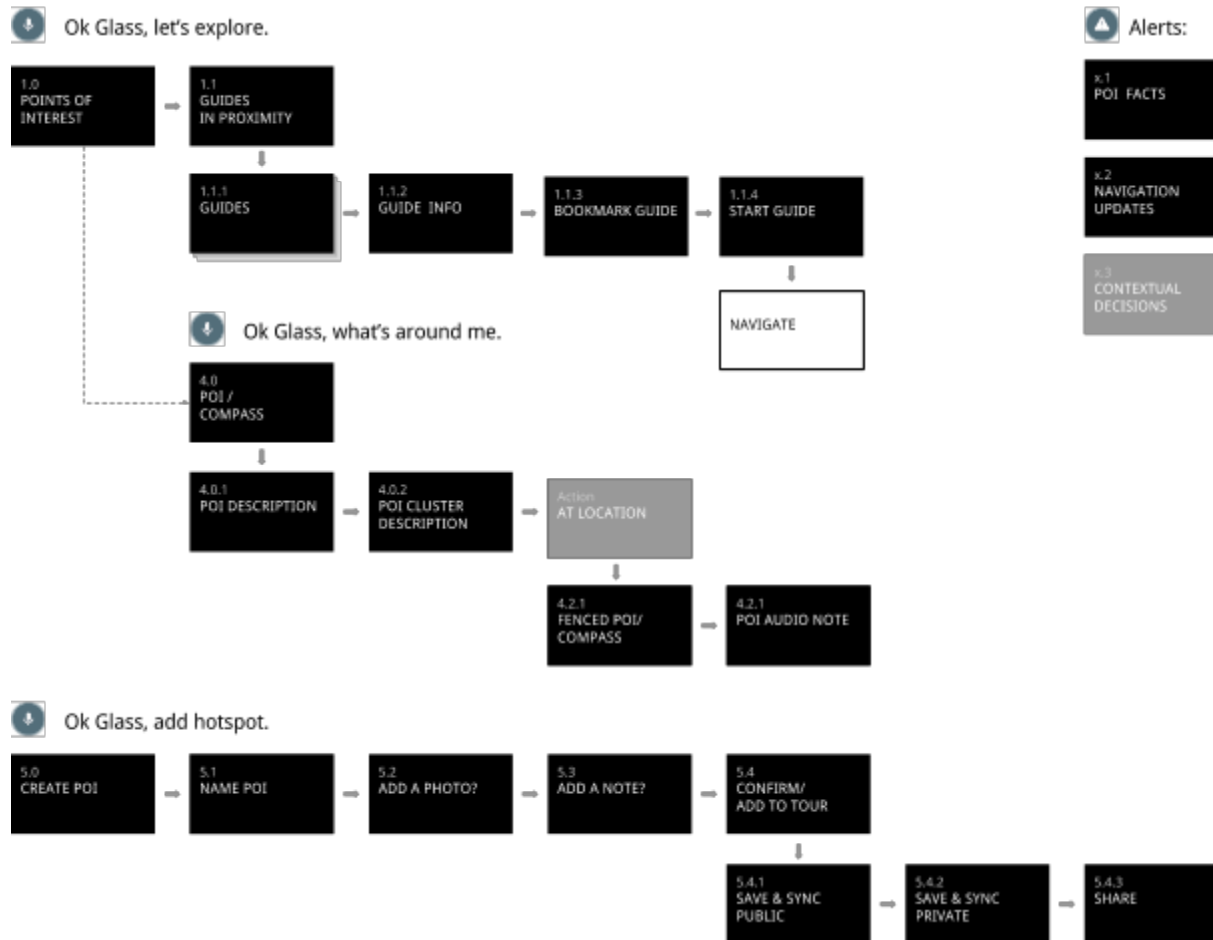- Only one US city is currently available in the current CityGuides app and it costs $4.99 to unlock.
- Dependencies:
  - Network connection available within outdoor/indoor environments
  - National Geographic to provide API and host all content
  - National Geographic to provide preexisting tours.
- Offline experience will not be considered for phase I
- Content on the app will not require a charge / CityGuides user account

Open Questions:

- Given there are existing weather apps on Glass, would we want to include weather alerts on the app?
- Should the settings for this app be on Glass, or on the linked mobile device?
- What are the sources of content outside of CityGuides?

- What is the framework for choosing which cities to add?

Travel Phase I User Flow:

Ok Glass, let's explore.

1.0 POINTS OF INTEREST → 1.1 GUIDES IN PROXIMITY

1.1.1 GUIDES → 1.1.2 GUIDE INFO → 1.1.3 BOOKMARK GUIDE → 1.1.4 START GUIDE

NAVIGATE

Ok Glass, what's around me.

4.0 POI / COMPASS

4.0.1 POI DESCRIPTION → 4.0.2 POI CLUSTER DESCRIPTION → Action AT LOCATION

4.2.1 FENCED POI/ COMPASS → 4.2.1 POI AUDIO NOTE

Ok Glass, add hotspot.

5.0 CREATE POI → 5.1 NAME POI → 5.2 ADD A PHOTO? → 5.3 ADD A NOTE? → 5.4 CONFIRM/ ADD TO TOUR

5.4.1 SAVE & SYNC PUBLIC → 5.4.2 SAVE & SYNC PRIVATE → 5.4.3 SHARE

Alerts:

x.1 POI FACTS

x.2 NAVIGATION UPDATES

x.3 CONTEXTUAL DECISIONS

Provide users with hands-free instructions to help them learn new skills.

As a learner, I'd like to select a tutorial to be guided through:

- Select an interest category and download available *Courses* from the Glassware Gallery. Courses contain a sequence of lessons
- Courses
    - Course Title Card
        - Reqs: Course Title, course image, short description, progress
        - Each course is specifically and individually installed from the Glassware Gallery
        - Tap to go into lessons listing (Swipe between lessons)
    - Overview
    - Instructor(s)
    - FAQ
    - About How-to
- Lessons.
    - Lesson Title Card
        - Shown in timeline
        - Title
        - Title image
        - Author name (optional)
        - Author image (optional)
        - Author credentials (optional)
        - Difficulty
        - Approximate time to complete
    - Tap: Lesson Start Card/Steps
        - Brief description
        - Image

Phase 1

- ■ Swipe: Things you will need Card
  - ● List of things you'll need Card
- ■ Tap: Step Card
  - ● Tap or speak to be guided through the steps
    - ○ Each step has the following
      - ■ Step info
        - ● Step number
        - ● Approximate time to complete
        - ● Any combination of text/html, photos, or video to explain what to do during that step
        - ● Next step is automatically queued
      - ■ Swipe or use voice command "Next Step", "Previous Step" to go between steps
      - ■ Tap a step card or wait to auto-play video tutorial
      - ■ next step
      - ■ previous step
      - ■ Redo current step
      - ■ Pause (Replaces Howto title card on the timeline with a 'resume this how-to' card)
        - ● User can automatically pick off where left off through cache api if user exits out of the app
  - ● Tip Card
    - ○ Short description
    - ○ Image (Optional)
    - ○ Found in between Step cards
    - ○ Users can see tips with voice command "OK Glass, I'm feeling tip-sy"
      - ■ Pending development of voice control API
  - ● Did you know Card
    - ○ Short description
    - ○ Image (Optional)

- - Found in between Step cards

As a learner, I would like to resume a how-to from where I left off:
- Resume a paused how-to guide from the timeline

As a learner, I would like to create my own how-to:
- Create a how-to
  - Create how-to (start the process)
  - Add step
    - Add step info (photos, videos, text, etc.)
  - Add title
  - Add supplies (optional)
  - Add tools (optional)
  - Add summary (optional)
  - Add cover image (optional)
  - Choose a topic
  - Publish
  - Save
  - Open saved (in progress) how-to

Content:

Content for the how-to app will be provided by HowCast in the form of Glass-formatted videos, difficulty, estimated time to complete, rating, etc. Glass-formatted HowCast how-tos will be supplemented with non Glass-formatted content from the HowCast site (or their YouTube channel).

R/A/I/D:
- Dependencies
  - Asset creation in Glass-specific format provided and hosted by HowCast
  - Identify which how-to's to include at launch
  - HowCast API provided and hosted by third party (eg HowCast)
- Risks

- Existing content not optimized for Glass
- Possible partner mobile app updates necessary
- Brand perception of HowCast
- Assumptions
  - AKQA will define a standard format, navigation commands and UI behaviours for stepped videos
  - HowCast to create a select number of first person perspective content for Glass
  - Currently the HowCast app charges for content. It is assumed that there will be no charge for Glass-specific content.
  - HowCast will provide and host the API and all content

How-to Courseware Phase I User Flow:

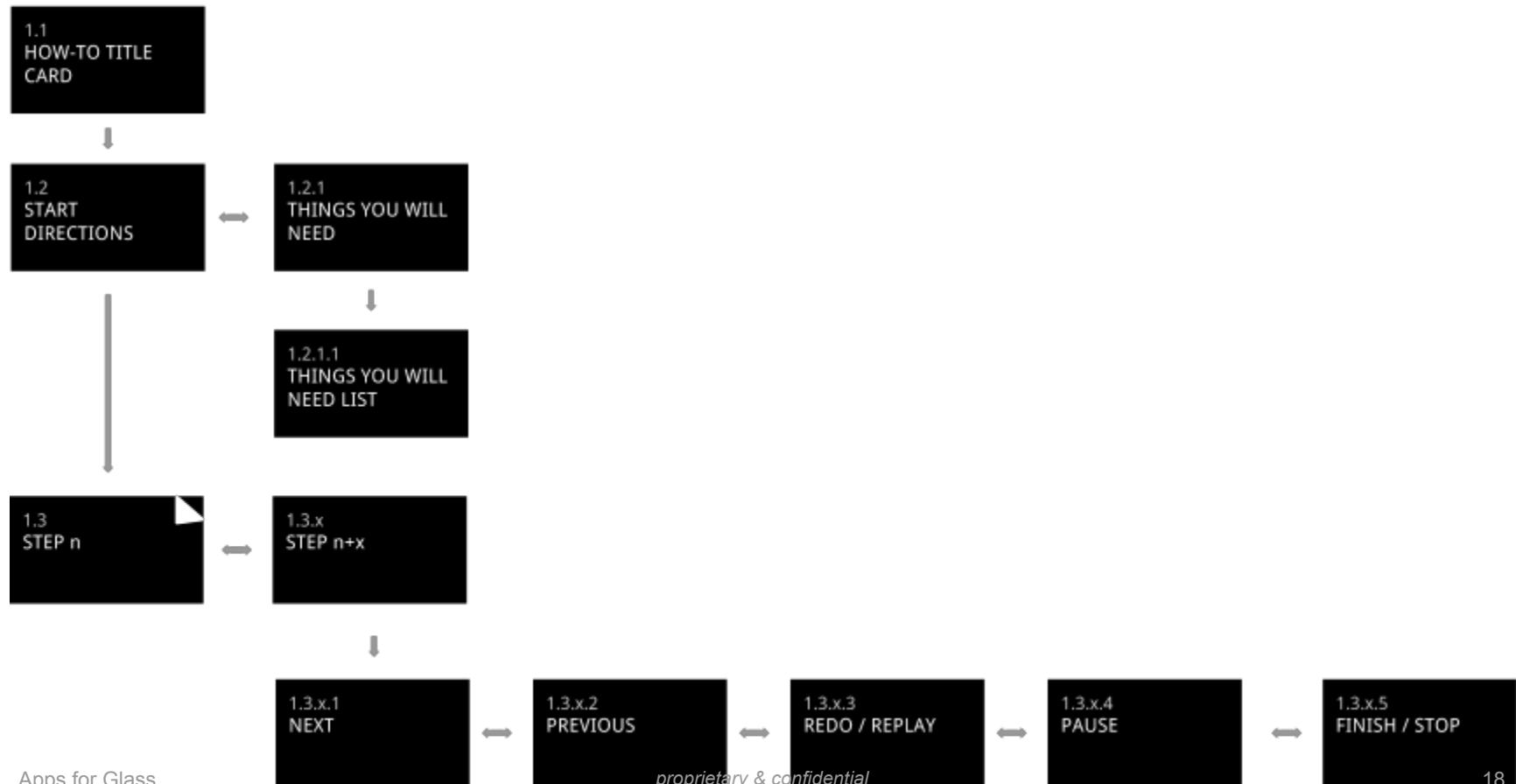Detailed show how-to flow (version 0.3, How-to Courseware): http://goo.gl/1ppl09

(anyone with a link can view with the glassware flow designer).

Ok Glass, show how to _unclog a sink_

Ok Glass, show how to _____

1.1 HOW-TO TITLE CARD

↓

1.2 START DIRECTIONS	⇔	1.2.1 THINGS YOU WILL NEED

↓

1.2.1.1 THINGS YOU WILL NEED LIST

1.3 STEP n	⇔	1.3.x STEP n+x

↓

1.3.x.1 NEXT	⇔	1.3.x.2 PREVIOUS	⇔	1.3.x.3 REDO / REPLAY	⇔	1.3.x.4 PAUSE	⇔	1.3.x.5 FINISH / STOP

COOKING

Partner: New York Times Cooking & other celebrity chefs   **Audience:** Cooking Enthusiasts

Help people cook simple meals at home.

As an amateur chef, I would like to find a recipe based on my dietary preferences and meal type:

- During the onboarding experience, users will be prompted to set dietary preferences by saying them aloud. Users will only be presented with recipes matching their preferences
  - Possible dietary preferences:
    - Dairy-Free, Gluten-Free, Halal, Kosher, Nut-Free, Raw, Vegan, Vegetarian
  - Alternative:
    - Users will be presented with a set of cards; each card with one dietary preference and user will have to swipe/tap on each card to indicate preference
      - E.g. "Vegan" card: Tap for yes, Swipe for no
  - Users will be able to edit their dietary preferences later on under app settings
- Users can specify meal type with the voice command "OK Glass, find a recipe for (breakfast/lunch/dinner)"
  - If users do not specify meal type, recipes will be chosen based on time of day

As an amateur chef, I would like to be guided through a recipe, step-by-step:

- Show five featured recipes based on selected dietary preferences and meal type   *Phase 1*
- Each recipe card will include a photo, preparation time and serving size
- (Preferred) After choosing a recipe, users will be able to send ingredient and equipment list via email, SMS or Google Now.
  - Users will be presented with screen notifying that shopping list has been sent
- Users will can also choose to view the list of ingredients and equipment directly on Glass
- After viewing the ingredient and equipment list, users will be guided through the recipe, step-by-step
  - Users can go on to the next step with the voice command "OK Glass, next step"
  - Users can go back to previous step with the voice command "OK Glass, previous step"

- - Each step will show a photo/GIF of the step with an overlay of text instructions. The instructions will be read aloud by Glass
    - Steps with complicated techniques will have the option of a video playback
      - Users will tap during that step to play the video or use the voice command "ok glass, play video"
    - Users will be able to see where they are at in the process through the progress bar at the bottom
    - Prompts to set reminders to be assessed in sprint 2 of phase 1
- Ability to cache which step of the recipe the user is at so that user can resume recipe where he/she left off when the same recipe is revisited
  - Ability to jump between recipes without having to start at the beginning for a recently viewed recipe
- Save favorite recipes (to be revisited on Glass on the next session) with a tap
  - Notification that recipe has been "saved"
- Share photo of completed dish with selected G+ circles
  - Users will be prompted to take a photo of their dish
  - Choose G+ circle to share photo with
    - Notification that photo has been "shared"

As an amateur chef, I would like to revisit my favourite recipes:
- When users reopen app, they are presented with two options: to view new recipes or to view favorite recipes
- Favorite/Saved recipes will be stored in users New York Times Cooking accounts and on the Glass app
- Saved recipes will have the same flow and functionality as new recipes

As an amateur chef, I would like to change my dietary preferences on Glass:
- Users can change their dietary preferences under "Settings"
- Dietary preferences are set by saying them aloud
  - Glass will capture this information and only present recipes that fit user's dietary preferences
  - Phase 2 alternative:
    - Ability to change dietary preferences and other settings on a mobile webpage

~~As an amateur chef, I would like to set multiple timers/reminders as I am guided through a recipe:~~
- ~~User can set reminders with the voice command "OK Glass, remind me in (x) minutes: (voice note)"~~
- ~~An alert will be displayed in the time requested containing the voice note.~~

Content:
- It is AKQA's assumption that the chosen partner will supply recipes and chefs to prepare the recipes
- AKQA will provide guidance towards the appropriate style and direction of the shoot
- Videos are to be shot in the first person perspective and broken up into steps
- Each recipe should be 15-30 minutes in duration
- A reminder should be included in the copy to remind users to set a timer when required
- New content per category will be released each week, with the categories as follows:
  - Dietary preferences: Dairy-Free, Gluten-Free, Halal, Kosher, Nut-Free, Raw, Vegan, Vegetarian
  - Meal type: breakfast, lunch, dinner

R/A/I/D:
- New York Times cooking will create Glass appropriate content in the first person perspective
- New York Times cooking will create and host an API to access all content
- AKQA will define a standard format, navigation commands and UI behaviours for stepped videos

Open Questions:
- Is there a standard template for settings on mobile webpage under Glassware gallery?
  - Need to assess possibility of moving dietary preferences from Glass experience to mobile experience
- Is there an internal service Google uses for app communications, in order to develop a simple email to share Glass recipes?

Cooking Phase I User Flow:

https://drive.google.com/a/akqa.com/file/d/0B8oOACHy0a8tMUlWbXpCQXNBNHM/view?usp=sharing