



**AI** HACKDAY

# Build a Flight Tracker using Bot Framework Composer

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# Hello!

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# Agenda



- Introduction to Bots
  - Why and Why Now?
- Design Principles
  - Success Factors of your next Bot
- Bot Framework Composer
  - Visual Authoring Canvas for developers to create bots

# What are Bots?



- Bots are services (powered by rules) that people interact with through conversation and messaging
- Conversational AI - Set of technologies that enable computers to simulate real conversations
  - Can be used in apps, browser or on IoT devices
  - New user interface paradigm

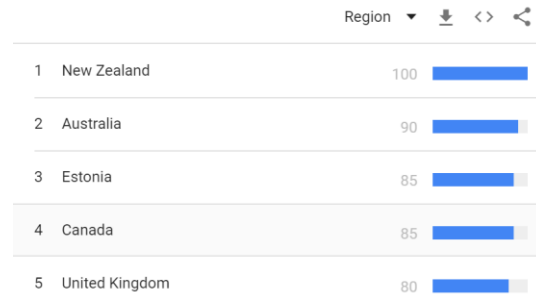


***Bots are the new apps – Satya  
Nadella***

# Why and Why Now?



"Bots / Agent Interfaces are the top 3<sup>rd</sup> trend for Digital Technology in 2020<sup>[1]</sup>" – Gartner



< Showing 1–5 of 66 regions >

Google Trends, Worldwide

[1] - <https://www.gartner.com/smarterwithgartner/5-digital-technology-trends-for-2020/>

# Digital Transformation



- FAQs
- Appointment Booking
- Transport Queries
- Troubleshooting
- Customer Onboarding or KYC process



Customer Services  
/ Help Desk

- Tickets booking
- Flight / Hotel booking
- Recommend products
- Find the right product



Retail / Shopping

- Meeting Room booking
- Find the right domain expert
- HR – booking holiday, fault reporting



In-house Support



# Design Principles & Guidelines

Success Factors for your next Bots





# Success Factors

- Must be used by people
- Ability to choose over existing experiences (mobile apps, websites etc.)
- Prioritize the right factors

Influencing Factors	Not Influencing Factors
Does your bot solve the user's problem in an efficient (read: faster) way?	How AI driven your bot is.
Does it run on multiple platforms and devices?	Does it support Natural Language Processing?
Is it discoverable enough?	Does it support voice or answers queries on your behalf?

# Welcome Message



- First impression is the key for retaining customers
- Be descriptive and tell user/customer about bot's capabilities
- Menus are valuable than a simple text and they don't affect the smartness of your bot either

***Whether you're designing an app, website or a bot; UX should be your top most priority!***



Hi! How may i help you?



Hello! This is AMA Airlines Bot. How may I help you today?

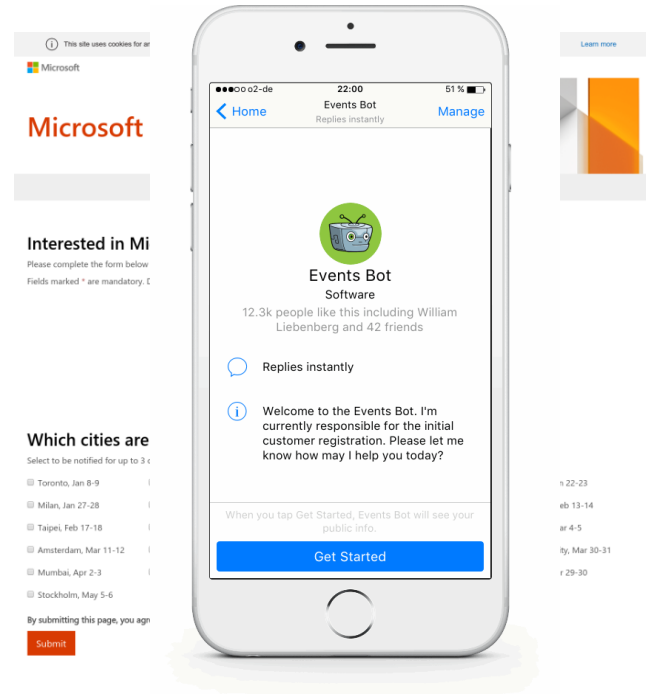
I want know fligh status

I want to book a flight

I want to modify my existing booking

# Traditional UX...

- Forms – Input Tools
- Messages (with rich controls) are the new UI
- Information gathering = Active Experience



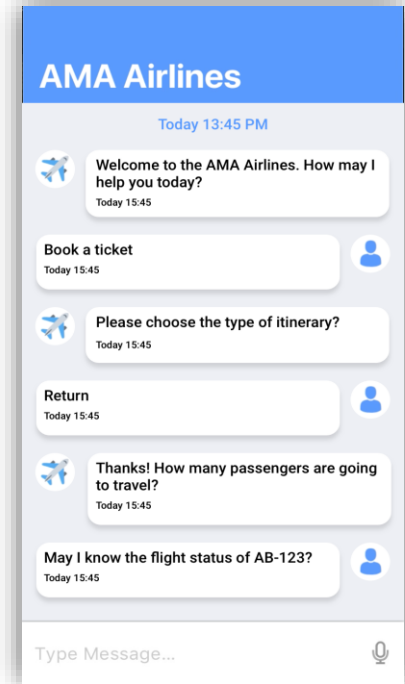
# Navigation Patterns



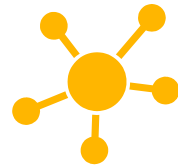
- Non-linear / free form
- Sequential / Guided

## Handle Interruptions

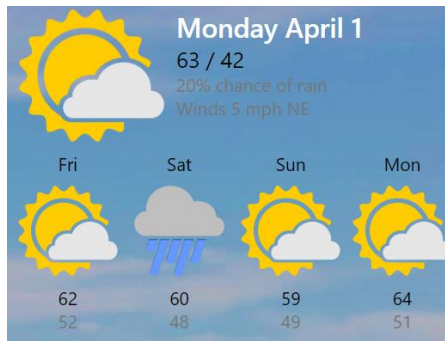
- Do you want to answer the user first?
- Discard your previous context and start from the new one?
- Resume from the previous discussion after answering this?



# Design Elements



- Rich Controls
  - Buttons, Images, Carousels
  - Cards (Adaptive, Audio, Video, Sign-In, Hero, Thumbnail etc.)



Bravi Ragazzi  
4.2 ★★★★★  
Italian 3.00 BHD

Place Order



Zigga Pizza  
4.6 ★★★★★  
Italian 4.00 BHD

Place Order

Cash

Card

Please Sign In

Sign In



# Design Elements

- Text and NLU (Natural Language Understanding)
  - Microsoft LUIS
  - IBM Watson API\*
  - Amazon Alexa\*
  - Google DialogFlow

For e.g. /start vm "startrek 1"

- Speech
  - Cognitive Speech APIs



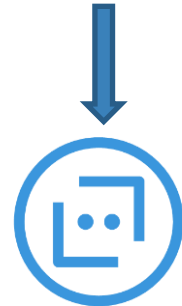
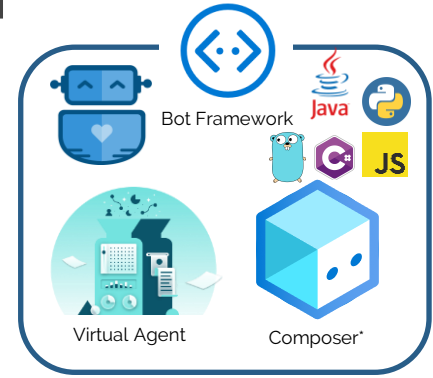
# Conversational AI Platform

Choose from the best options

# Choose the **right** option



- Business objective is the key
- Code vs No-Code
- Bot Framework (or Composer\*) Bot, Virtual Assistant (Enterprise) or Power Virtual Agent?



Azure Bot Service



# Bot Framework Composer

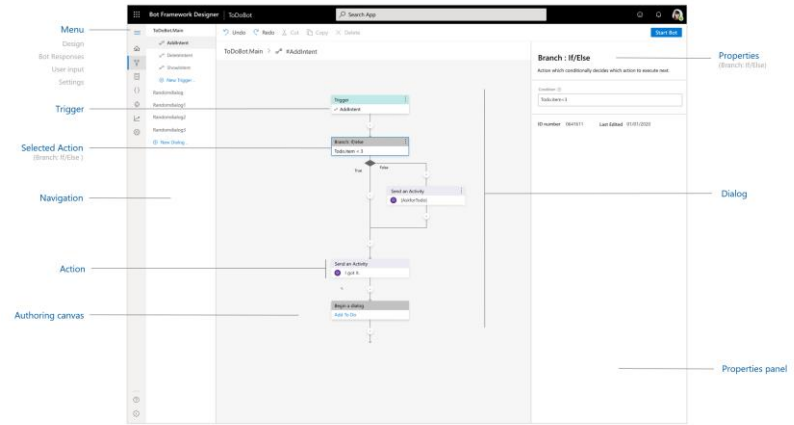
Visual Authoring Canvas – Drag & Drop



# BF Composer



- Open source development tool
- A visual editing canvas for authoring and visualizing the conversation flow
- Language understanding (NLU) in-context of conversation authoring.
- Tools to train and manage dialog components (including NLU and QnA)
- Author Bot responses (powered by Language generation and templating system)
- A ready-to-use bot runtime



# Pre-Requisites



- Bot Framework Composer
  - <https://docs.microsoft.com/en-us/composer/setup-yarn>
- Bot Framework Emulator
  - <https://github.com/Microsoft/BotFramework-Emulator/releases/tag/v4.8.1>
- Azure (Trial) Subscription
  - <https://azure.microsoft.com/en-gb/offers/ms-azr-0044p/>

## Need Help?

- Bot Framework Composer Docs – The ultimate guide
  - <https://docs.microsoft.com/en-us/composer/introduction>
- Demo Repo
  - <https://github.com/jernejk/aihackday-warmup-2020>
- Blog Post
  - <https://www.arafattehsin.com/build-a-flight-tracker-using-bot-framework-composer-part-1/> & <http://www.arafattehsin.com/build-a-flight-tracker-with-bot-framework-composer-part-2/>



# DEMO...

Build a Flight Tracker with Bot Framework Composer

# Resources



- AI Hack Day Warm Up Repo
  - <https://github.com/jernejk/aihackday-warmup-2020/>
- Learn Bot Framework
  - <https://docs.microsoft.com/en-us/learn/paths/create-bots-with-the-azure-bot-service/>
- Bot Framework Composer
  - <https://docs.microsoft.com/en-us/composer/introduction>
- Bot Framework Community
  - <https://github.com/botbuildercommunity>
- My Blog
  - <https://www.arafattehsin.com/blog>



# Thanks!

## Any questions?

You can find me at @arafattehsin & arafat@outlook.com



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