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**IBM Developer**



# Build a Framework that Connects Whatsapp to IBM Watson Services

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Introduction to Serverless Applications on Red Ha... ⓘ

Starting in 4 hrs, 46 min & 10 sec

Thu, Jan 28, 2021 5:00 PM GST

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# Why join Call for Code

## Skill-building

You can learn about industry-leading open hybrid cloud technologies and develop skills that can enhance your professional career while making a positive impact on the world.

## Social Good

By fighting back against the most pressing humanitarian and societal issues of our time, you are building and/or contributing to projects that have the potential to be deployed into communities in need.

## Community

Are you ready to be a part of a community of societal problem solvers? Call for Code is your opportunity to meet and network with people from around the world who share similar passions for using **#TechforGood**.

## Ideas to Action

This isn't your average hackathon. If you want the chance to build a solution that can make true impact in the field, Call for Code can turn your idea into action through deployment support from The Linux Foundation.



## \$200K Grand Prize

The winner of the Call for Code Global Challenge wins \$200k and support from IBM, and its partners help set-up the winning team from concept to company.

Get started at :

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# Agenda

## **AI vs ML**

Machine Learning Process  
Machine Learning Types

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## **Watson ML**

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## **Flask**

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## **Twilio**

**Use Case**

## **Hands-On**

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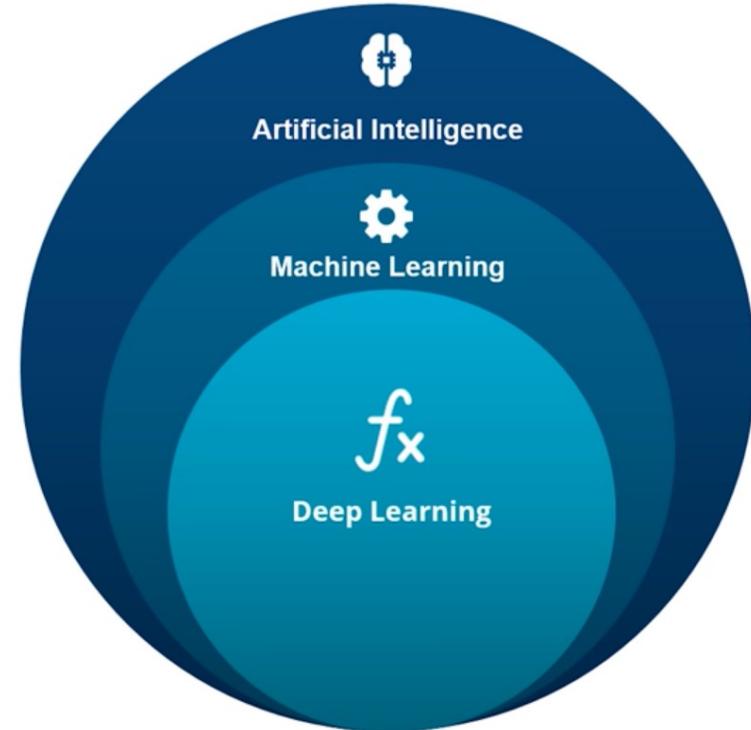
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**14**

**17**

# Artificial Intelligence vs Machine Learning

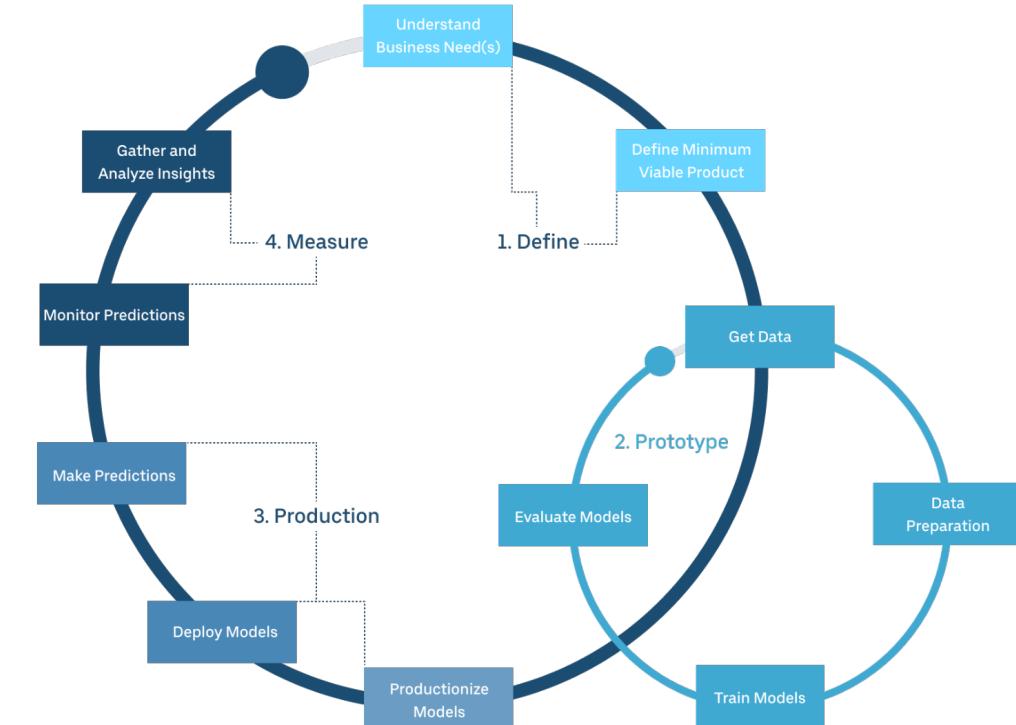
- **Artificial Intelligence** is the making of intelligent machines by enabling the machine to copy human behaviours.
- **Machine learning** is subset of AI uses statistics to enable machines to improve with experience.
- **Deep learning** is subset of machine learning that enables computers to solve more complex problems.



<https://www.edureka.co/blog/ai-vs-machine-learning-vs-deep-learning/>

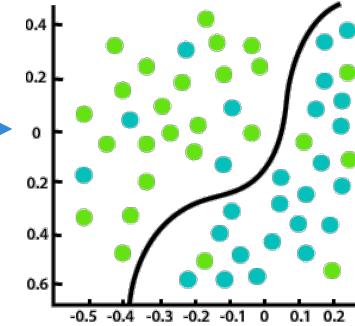
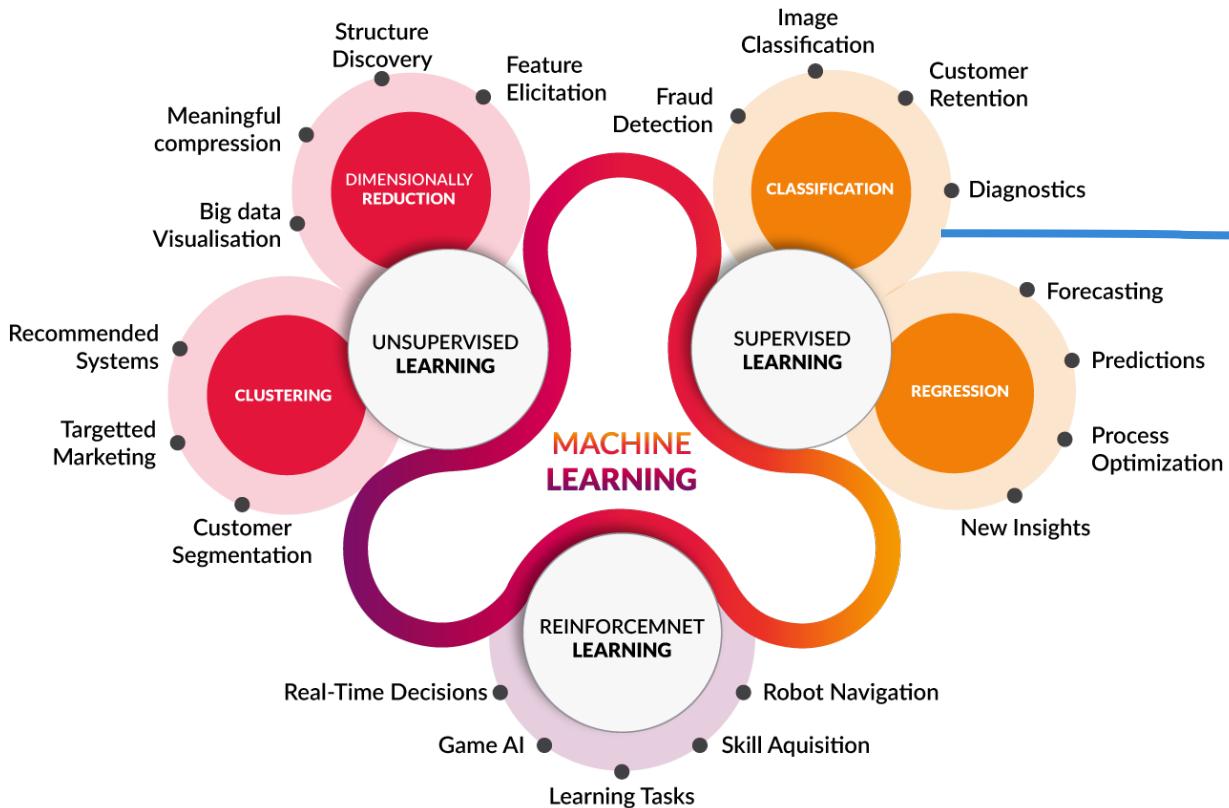
# Machine Learning Process

- Define the problem and solution
- Develop and prototype the model
- Produce the model
- Measure the model



<https://www.kdnuggets.com/2020/07/some-things-uber-learned-machine-learning-scale.html>

# Machine Learning Types

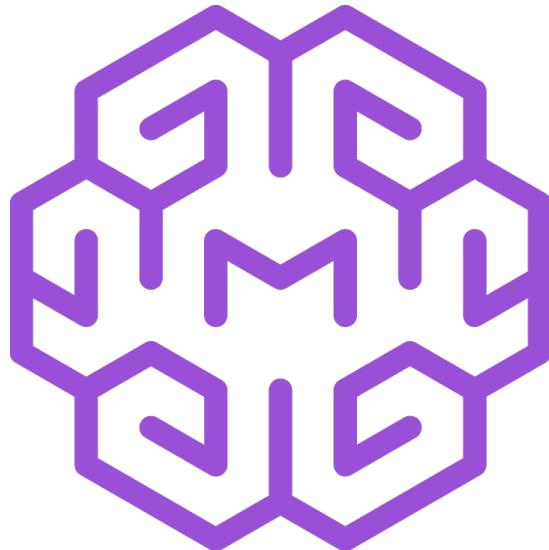


<https://laptrinhx.com/machine-learning-i-introduction-linear-regression-explained-3160564266/>

<https://towardsdatascience.com/coding-deep-learning-for-beginners-types-of-machine-learning-b9e651e1ed9d>

# Watson Machine Learning

- Deploy models as ML, DL and decision optimize models
- Dynamically retrain models with continuous learning
- Automatically generate APIs to build powered AI apps
- Manage and monitor the models
- Accelerate to develop AI and ML on Cloud Pak for Data (Watson Studio)



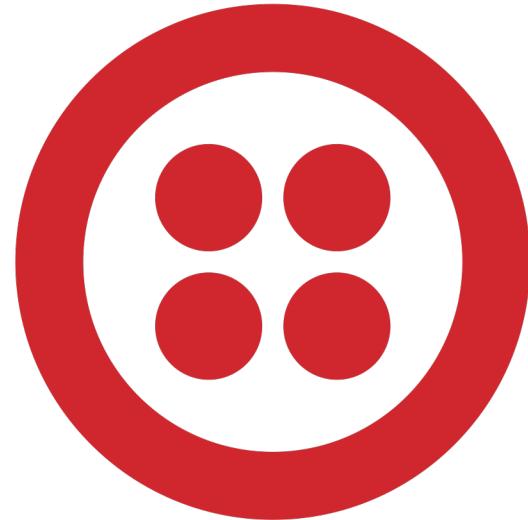
# Flask

- Micro web framework written in Python
- Does not require specific tools or libraries Automatically generate APIs to build powered AI apps
- It's light: no database abstraction layer, form validation or pre-existing 3<sup>rd</sup> party libraries
- Accelerate to develop AI and ML on Cloud Pak for Data (Watson Studio)
- Very popular and common



# What is Twilio?

- Developer platform for communications
- Provides a link between the internet and the telecom networks
- Helps to add capabilities like voice, video and messaging to applications



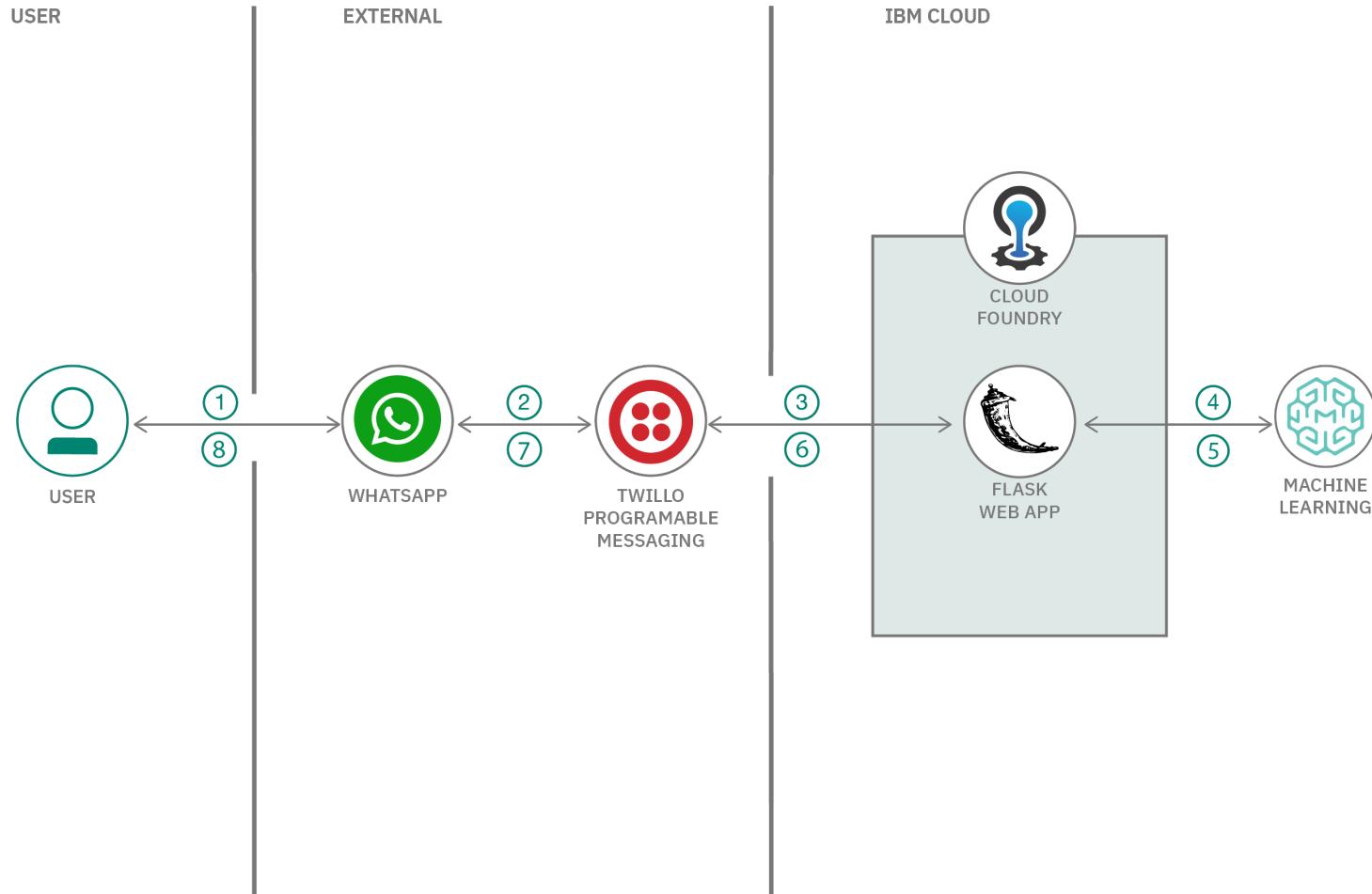
<https://iconscout.com/icon/twilio>

# Use Case

- Building a framework that acts as an mediator in connecting Watson services to Whatsapp
- Deploy a simple house price prediction model and access it from Whatsapp



<https://mydata2018.org/programme/cases/>



# Hands On

- Sign up/Log in to your IBM Cloud Account [ibm.biz/WatsonWhatsapp](https://ibm.biz/WatsonWhatsapp)
- Follow along for the hands-on [ibm.biz/WatsonWhatsappLab](https://ibm.biz/WatsonWhatsappLab)



# Summary

- Deployed the backend app to Cloud Foundry on IBM Cloud
- Created a Twilio service and instantiated a sandbox for the Whatsapp integration
- Created a Watson ML service that helped us to deploy our price prediction ML model on CP4D (Watson Studio)
- The backend app connects the dots. Twilio communicates with Whatsapp to get the user's query, sends it to our flask app that will process the information with Watson ML and eventually sends the result back to the user



# Useful Links

Learn - develop - connect

**Get Started Here** ([ibm.biz/WatsonWhatsapp](https://ibm.biz/WatsonWhatsapp))

**Hands-On Lab** ([ibm.biz/WatsonWhatsappLab](https://ibm.biz/WatsonWhatsappLab))

**IBM Developer** (<https://developer.ibm.com/>)

**Meetup** (<https://www.meetup.com/IBM-Cloud-MEA/>)

Call for Code in 2021

“The impacts of climate change are global in scope and unprecedented in scale. Without drastic action today, adapting to these impacts in the future will be more difficult and costly.”

**United Nations**

Get started at:

[developer.ibm.com/callforcode/](https://developer.ibm.com/callforcode/) →



# Thank you.

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