

# SILABUS

## ARTIFICIAL INTELLIGENCE



# SILABUS ARTIFICIAL INTELLIGENCE DIGITAL TALENT SCHOLARSHIP 2019

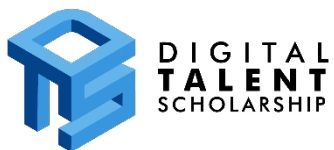
INFORMASI UMUM	
Tema Pelatihan	Artificial Intelligence with Alexa and DeepLens
Mitra Penyelenggara	Amazon Web Services
Target Peserta	1000 Peserta
Durasi	1 (satu) sampai 3 (tiga) bulan di antara Bulan Agustus sampai November 2019
Tools	AWS Digital Learning and AWS Educate
Sertifikasi	<ul style="list-style-type: none"><li>• AWS Educate digital badge on Alexa and DeepLens</li><li>• Cloud Practitioner Certification</li></ul>
Persyaratan Peserta	<p>Persyaratan Umum</p> <ul style="list-style-type: none"><li>• Warga Negara Indonesia</li><li>• Lolos seleksi administrasi &amp; tes substansi</li></ul> <p>Persyaratan Khusus</p> <ul style="list-style-type: none"><li>• AWS Educate Cloud Computing 101</li></ul>
Persyaratan Sarana yang Harus Dimiliki Peserta	<ul style="list-style-type: none"><li>• Standard Terminal Emulator/SSH Client (contoh: PuTTY or MobaXterm)</li></ul> <p>Text editor. A professional text editor (contoh: NotePad++, Sublime Text, Atom)</p>





DESKRIPSI
<p><b>Artificial Intelligence with Alexa and DeepLens</b></p> <p>Pelatihan AI with Alexa &amp; DeepLens mencakup keterampilan dalam menggunakan Alexa Skills Kit &amp; New Machine Learning models pada AWS DeepLens, termasuk memahami cara membuat Video dan Voice User Interface.</p>

TUJUAN PELATIHAN	
Setelah mengikuti pelatihan ini, peserta diharapkan mampu untuk:	
	<ol style="list-style-type: none"><li>1. Membangun S3 bucket, Lambda</li><li>2. Menguasai Alexa Skills Set</li><li>3. Memahami Alexa Skills Kit; Mengidentifikasi kasus-kasus dalam penggunaan Alexa.</li><li>4. Terampil mengelola AWS DeepLens</li></ol>

RENCANA PELATIHAN: Artificial Intelligence with Alexa and DeepLens	
Sesi	Topik Pelatihan Artificial Intelligence with Alexa
Sesi 1	<b>Introduction: AWS Educate and program</b> <ul style="list-style-type: none"> <li>• Bagaimana menemukan self-service resources pada cloud computing 101, ML, Alexa, DeepLens.</li> <li>• Pendaftaran AWS Educate</li> </ul>
sesi 2	<b>Introducing AWS Foundational Services</b> <ul style="list-style-type: none"> <li>• Apa yang ada di Amazon Web Services (AWS)?</li> <li>• Infrastruktur AWS global</li> <li>• Sekilas tentang AWS Management Console</li> </ul>
sesi 3	<b>Introducing AWS Foundational Services</b> <ul style="list-style-type: none"> <li>• Menggunakan Simple Storage Services (S3)</li> <li>• Demo S3 <i>bucket creation</i> dan <i>bucket policy</i></li> </ul>
sesi 4	<b>Introducing AWS Foundational Services</b> <ul style="list-style-type: none"> <li>• Demo AWS Console dan IAM</li> <li>• Amazon Lambda</li> <li>• Menggunakan layanan database Amazon DynamoDB, sebuah NoSQL Managed Service</li> </ul>
sesi 5	<b>Introduction to advanced AWS Services</b> <ul style="list-style-type: none"> <li>• Pendahuluan Amazon Internet of Things (IOT)</li> <li>• Pendahuluan Amazon Artificial Intelligence (AI) dan Deep Learning</li> <li>• Life-like Text to Speech Service – Amazon Polly</li> <li>• Speech to Text Natural Language Understanding – Amazon Lex</li> <li>• Pengantar Amazon Echo - Alexa</li> </ul>
sesi 6	<b>Lab session</b> <ul style="list-style-type: none"> <li>• Belajar menggunakan Amazon Internet of Things (IOT)</li> <li>• Life-like Text to Speech Service – Amazon Polly</li> <li>• Text Natural Language - Amazon Lex</li> </ul>
sesi 7	<b>Introduction to Amazon Echo – Alexa</b> <ul style="list-style-type: none"> <li>• Amazon AI, deep learning &amp; respective vision, speech, language &amp; chat services (<i>video on Amazon GO</i>)</li> <li>• Share trends from GUI to VUI</li> </ul>
sesi 8	<b>Cloud-based voice service – Alexa</b> <ul style="list-style-type: none"> <li>• Amazon Alexa dan Amazon Echo (<i>video on Alexa for Ford</i>)</li> <li>• Alexa Skills dan Alexa Skill Kit</li> </ul> <b>Ideation Brainstorming</b> <ul style="list-style-type: none"> <li>• Apa yang dapat dibangun dengan Alexa</li> </ul>

	<ul style="list-style-type: none"> <li>• <i>Alexa Skills design process (pizza suggestion skills)</i></li> <li>• <i>Design principles</i> dan tips untuk membangun Alexa skills</li> </ul>
sesi 9	<b>Project: Building Skills for Amazon Alexa</b> <ul style="list-style-type: none"> <li>• Bagaimana kerja layanan Amazon Alexa</li> <li>• Alexa Skill Kit</li> <li>• <i>Intents and utterances</i></li> <li>• Opsional: <i>slots, custom slots, long time memory</i>, personalisasi, data dan daftar (penjelasan pada Lambda, S3, DynamoDB)</li> <li>• Hands-on lab untuk membangun sample intent</li> </ul>
Sesi	Topik Pelatihan Deeplens
Sesi 1	<b>Introduction to AWS DeepLens and Prerequisite Knowledge</b> <ul style="list-style-type: none"> <li>• Apa itu DeepLens?</li> <li>• Apa yang saya perlu tahu?</li> <li>• DeepLens Prerequisite Knowledge (AWS Educate)</li> </ul>
sesi 2	<b>Getting Started</b> <ul style="list-style-type: none"> <li>• AWS DeepLens Projects</li> <li>• Bekerja menggunakan SageMaker</li> <li>• Hands-on lab: <i>Getting Started</i> (AWS Educate)</li> </ul>
sesi 3	<b>Managing your AWS DeepLens Device</b> <ul style="list-style-type: none"> <li>• Mengamankan perangkat AWS DeepLens</li> <li>• Update perangkat AWS DeepLens</li> <li>• Deregister Perangkat AWS DeepLens</li> <li>• Logging dan Troubleshooting</li> <li>• AWS DeepLens – Library dan History</li> <li>• Hands-on lab: Mengelola Perangkat (AWS Educate)</li> </ul>



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