

Course Name	IBM CE – Enablement Program - Application Development and Deployment for Cloud using IBM BlueMix
Suggested Course Duration	32 Hours (4 Days)
Overview	<p>Cloud computing - the deployment of network-based applications in a highly flexible, shared IT environment - is becoming a key enabler of better service delivery and greater value in today's business landscape. It offers a number of major advantages over more traditional application deployment models, including the more efficient use of IT and development resources, easier and less costly maintenance, and the ability to deliver consistent services through a variety of channels. Cloud computing also makes it easier for businesses to partner and bring enhanced composite service offerings to market very quickly.</p> <p>But developing cloud-based applications requires new approaches that address the unique requirements of software-as-a-service. IBM Application Development Services for Cloud delivers on the promise of cloud application development by building custom cloud applications from implementation planning to design, development and deployment.</p>
About the course	<p>IBM BlueMix, its Platform-as-a-Service (PaaS) to help developers quickly integrate applications and speed deployment of new cloud services.</p> <p>Built on open standards and leveraging Cloud Foundry, IBM BlueMix has made major advancements since being announced in 2014, including:</p> <ul style="list-style-type: none"> – Cloud integration services to enable a secure connection between an organization's public applications and private data – Swift, secure and fast connections, via the cloud, between Internet of Things and machine to machine device to store, query and visualize data – Data and analytics-as-a-service to allow the rapid design and scale of applications that turn Big Data into competitive intelligence – DevOps services that support the complete developer lifecycle <p>IBM BlueMix combining the strength of IBM's middleware software with third-party and open technologies to create an integrated development experience in the cloud. Using an open cloud environment, IBM BlueMix helps both born-on-the-web and enterprise developers build applications with their choice of tools. With the ability to easily combine a variety of services and APIs from across the industry to compose, test and scale custom applications, developers will be able to cut deployment time from months to minutes.</p> <p>This course is designed to teach you how to build applications for deployment to the cloud platforms using BlueMix.</p>
Audience	This course is designed for participants who want to be software architects and developers of cloud systems, as well as application and enterprise software engineers.

	<p>Disciplines: Undergraduate or Graduate programs in Engineering, Computer Applications, Science etc.</p>
<p>Pre-Requisites</p>	<p>To benefit from this course, participants should have the following skills or experience:</p> <ul style="list-style-type: none"> – Programming using Java – Knowledge of Eclipse – Familiarity with Java EE for Web development (HTML, JSPs, and Servlets) – Experience using relational databases – The design-implement-test-deploy stages of application development – Object-oriented design and analysis
<p>Contents</p>	<p>This course covers the following topics:</p> <p>Introduction to Bluemix Cloud computing overview Consumption View – IaaS (Soft Layer), PaaS (IBM Bluemix),</p> <p style="padding-left: 40px;">Blue Mix Architecture Blue Mix Overview and Dashboard Setup and installations - Eclipse and CF plugins <i>Lab Exercise:</i> Building an Application from a Boilerplate in the Bluemix UI</p> <p style="padding-left: 40px;">Deploying a Java web app that uses the PostgreSQL service with the IBM Bluemix Eclipse tools <i>Lab Exercise :</i> Building and Deploying the Java version with the IBM Bluemix Eclipse tools</p> <p>Development of Apps using Bluemix Services Registering Services in Bluemix <i>Lab Exercise :</i> Deploying Node red app that uses the MySQL /Mongo DB service.</p> <p>Development of Apps using IoT (Internet of Things) Services on Blue Mix Overview of Internet of Things Overview Internet of Things Services <i>Lab Exercise :</i></p> <p style="padding-left: 80px;">Part 1: Registration of devices on Internet of Things</p> <p style="padding-left: 80px;">Part 2: Creating a app and connecting to devices using IoT.</p> <p>Bluemix Services in Mobility & Big Data Overview of Services in the areas of Mobile Apps Development & Big Data <i>Lab Exercise:</i> Building an Application with Mobile Backend as a Service (MBaaS) on Bluemix platform</p>



	<p><i>Lab Exercise</i> : Data Management service - Build an BI application using Map Reduce Service to perform analytics for Big Data Sets</p>
Roadmap	<p>Participants who wish to learn further about Cloud Computing should take the following courses:</p> <ul style="list-style-type: none">- Advance Application Development and Deployment for Cloud using IBM Bluemix- About Cloud Security