Specification of Competency Standards
for the Information & Communications Technology Industry
Unit of Competency

Functional Area - Operations Management

Title	Apply augmentation data in AR application
Code	107995L4
Description	This unit of competency applies to interactive web designers in the DMT (digital Media Technology) profession. One of key processes in the development of AR applications is cross referencing and overlaying live data we are augmenting and the meta data used for augmentation. This UoC concerns the competencies in applying augmentation data in AR applications in the capacity of a developer.
Level	4
Credit	3
Competency	Performance Requirements 1. Knowledge for augmentation data in AR application - Master programming knowhow, concepts and techniques - Possess good understanding about AR related techniques and tools, such as: - HTTP and XML parsing 3D rendering - AR SDK - Head mounted displays - Eye wear and wearable displays, etc. - Process proficient knowledge and technique in storing and accessing augmentation data - Understand software related copyright, ethics and privacy issues 2. Apply augmentation data in AR application: - Determine the sources of augmentation data for the AR application in concern, which typically may be: - From own database - From online database - From web service that can filter to nearby points of interest through web or cloud services, etc. - Determine when and where to perform graphics overlay by placing augmentation data into live data - Implement data sharing solutions with augmentation data, such as taking input from camera and overlaying images in real-time and mesh up with the image - Interact objects / data in both the real and virtual world, typically by the following procedures: - Detect and track input data such as coordinate marks or fiducials - Process input data to determine the relative position and orientation between the user and the target objects - Register virtual world objects to the real world objects - Integrate virtual world objects with the real world objects by : - Displaying or projecting an image of the virtual world objects over the real world objects - Electronically combining an image of the virtual world objects with a captured imaged of the real world objects, etc. - Use various application program interfaces (APIs) to overlay the augmentation data over live data for creation of augmented experiences, including but not limited to: - Device camera APIs - Graphics APIs - Sensor APIs, etc.

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	• Make appropriate adjustments reiteratively to the process of applying augmentation data until the desired outcomes are achieved 3. Exhibit professionalism • Always devote fully to the process of applying augmentation data to the AR application in concern, and remain open and updated with related technologies • Always perform the process of applying augmentation data according to user requirements and expectations, and place the interests of users as the highest priority consideration
Assessment Criteria	The integrated outcome requirements of this UoC are the abilities to: • Complete the tasks for applying augmentation data to the AR application within time and budget constraints • Grasp users' expectations and preferences towards the AR application in concern and produce outputs with satisfactory contents and level
Remark	