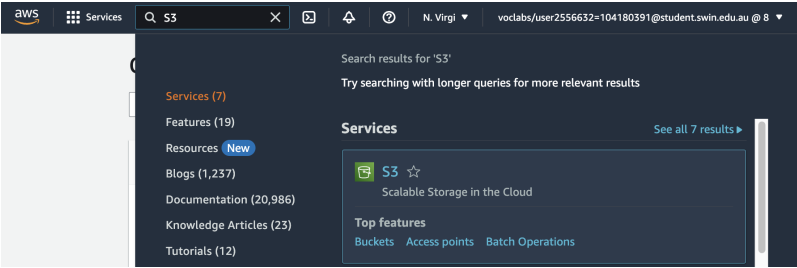
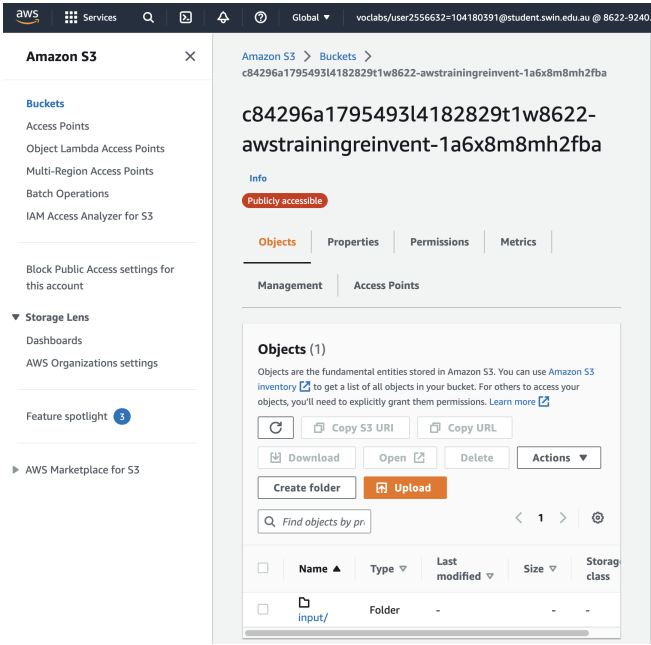
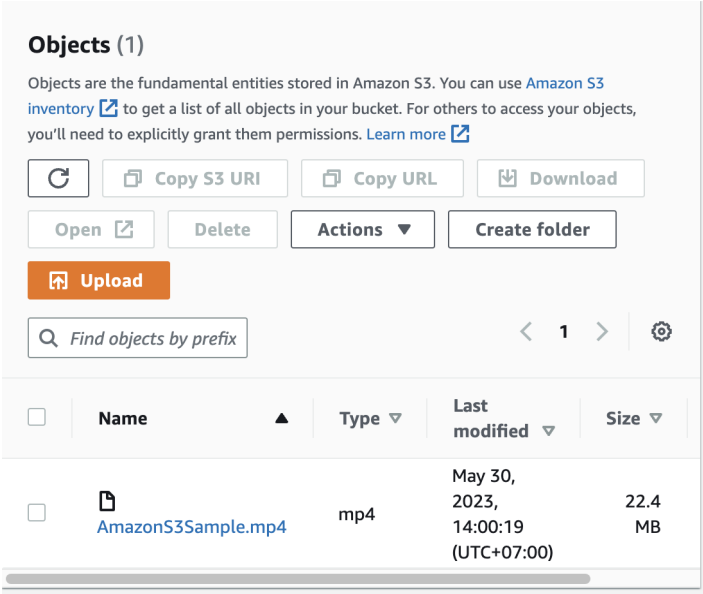


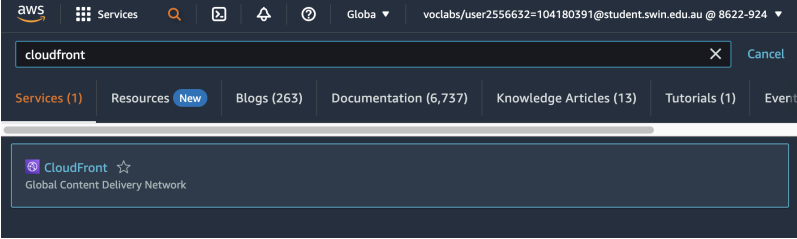
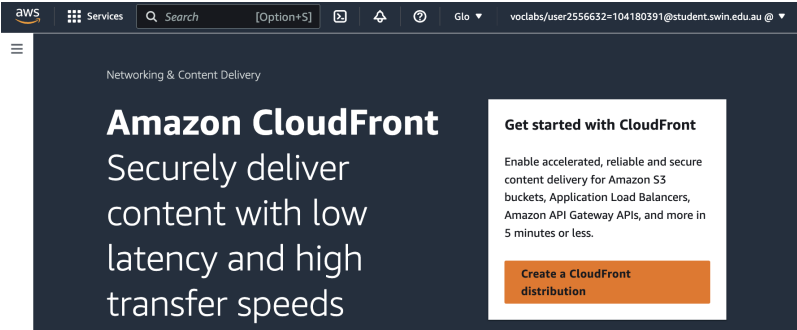
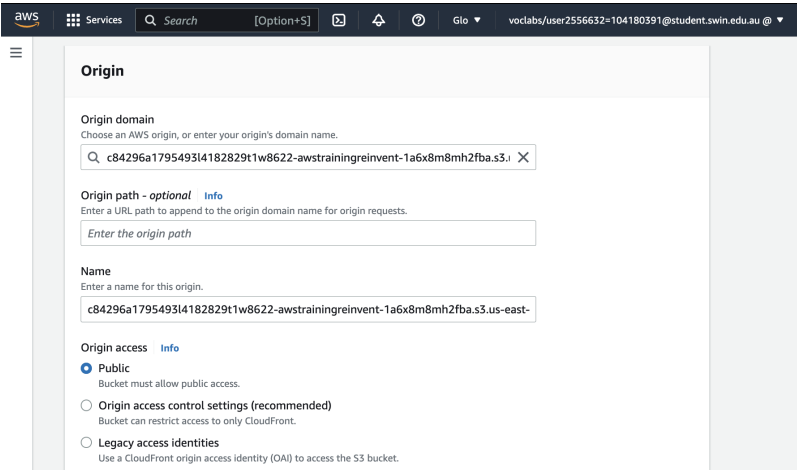
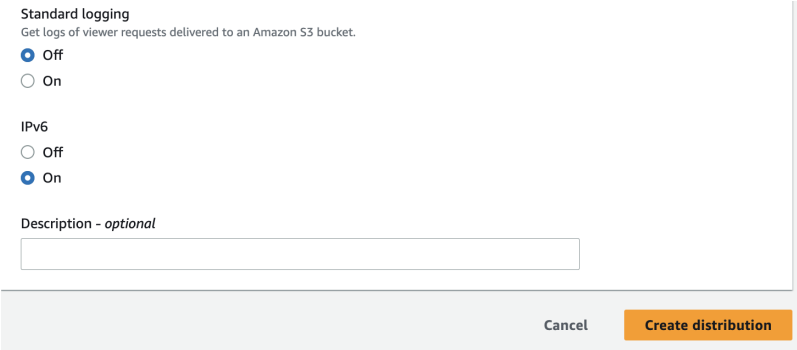


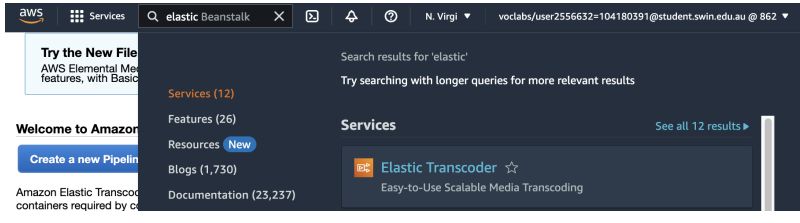
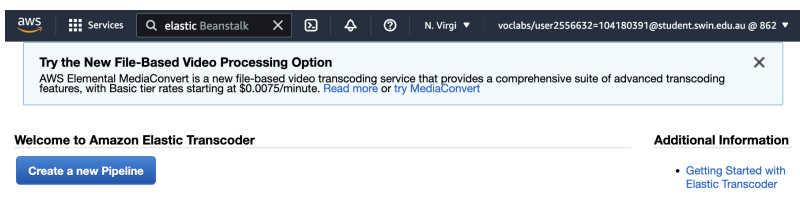
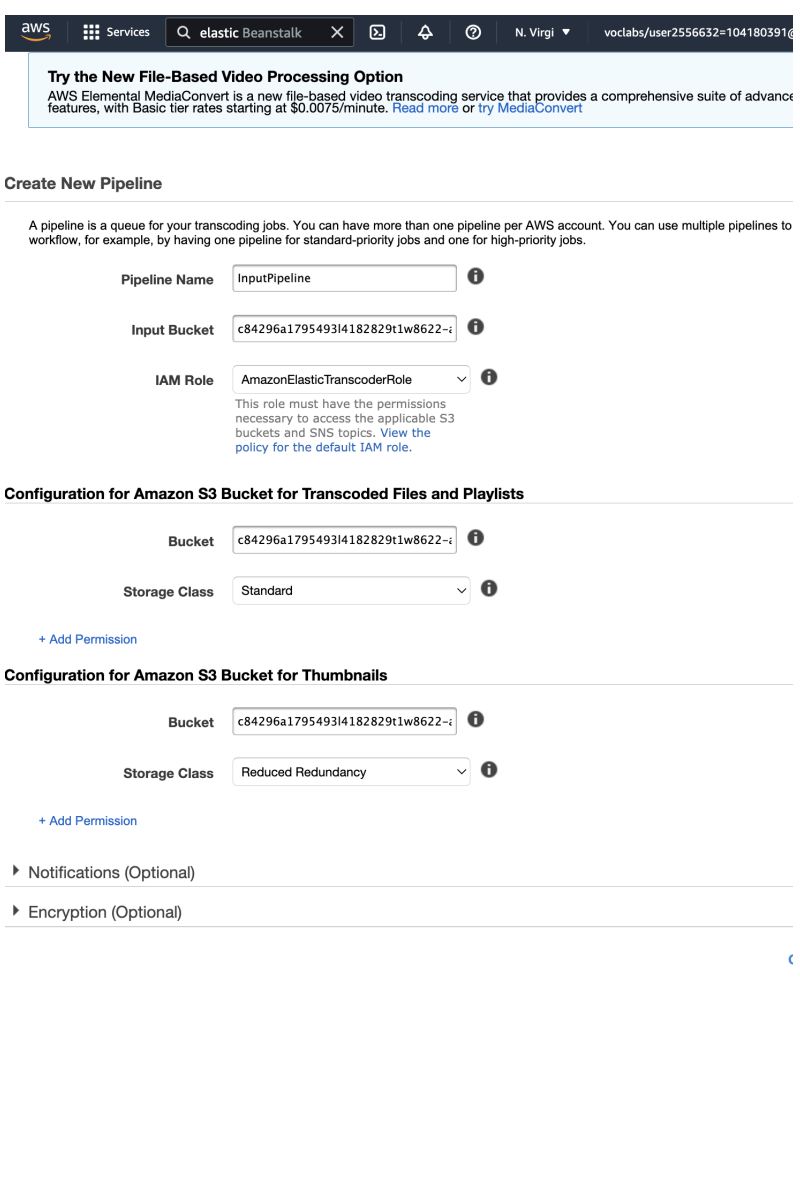
Week 3: ACA Module 11 Guided Lab - Streaming Dynamic Content using Amazon CloudFront

May 27, 2023

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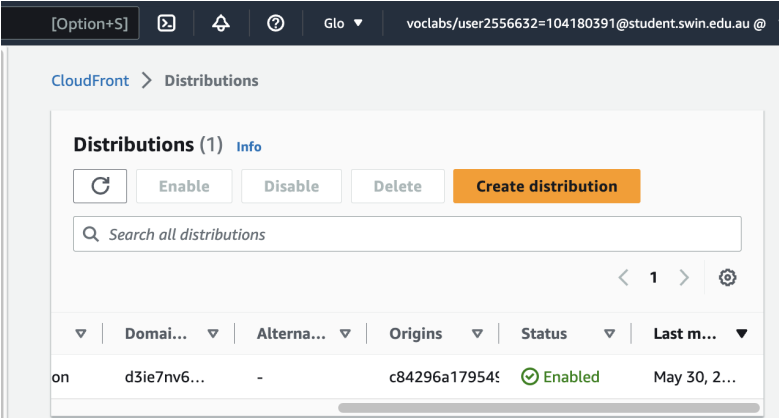
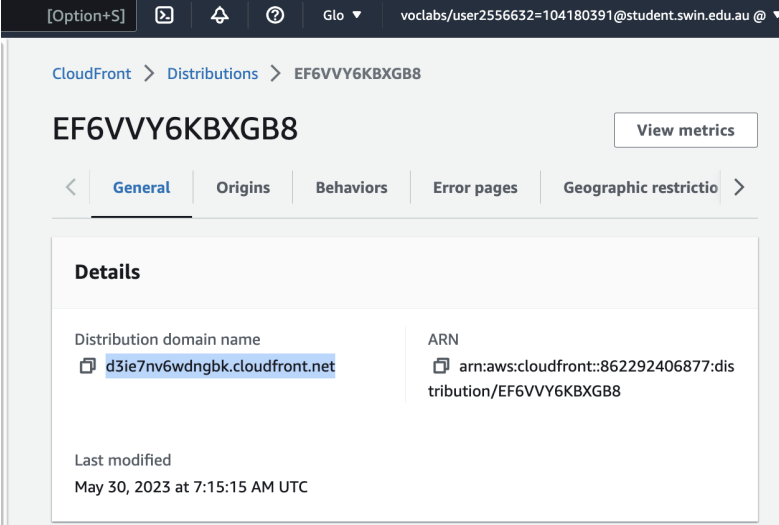
Step	Description	Screenshot
1	In the AWS Management Console, on the Services menu, choose S3 .	 A screenshot of the AWS Management Console showing the search results for 'S3'. The search bar at the top contains 'S3'. Below the search bar, there are several categories: Services (7), Features (19), Resources (New), Blogs (1,237), Documentation (20,986), Knowledge Articles (23), and Tutorials (12). The 'Services' section is expanded, showing 'S3' as a service with the description 'Scalable Storage in the Cloud'. Below this, there are links for 'Top features', 'Buckets', 'Access points', and 'Batch Operations'.
2	An S3 bucket containing the string awstrainingreinvent should be present.	 A screenshot of the Amazon S3 console. The left sidebar shows the 'Amazon S3' menu with options like Buckets, Access Points, Object Lambda Access Points, Multi-Region Access Points, Batch Operations, IAM Access Analyzer for S3, Storage Lens, Dashboards, and AWS Organizations settings. The main content area shows the details of a bucket named 'c84296a179549314182829t1w8622-awstrainingreinvent-1a6x8m8mh2fba'. The bucket is publicly accessible. Below the bucket name, there are tabs for 'Objects', 'Properties', 'Permissions', and 'Metrics'. The 'Objects' tab is selected, showing a list of objects. The list contains one object named 'input/' which is a folder. The table has columns for Name, Type, Last modified, Size, and Storage class.
3	Open the input folder. It contains a video file named AmazonS3Sample.mp4 .	 A screenshot of the Amazon S3 console showing the contents of the 'input' folder. The 'Objects (1)' section is displayed, showing a list of objects. The list contains one object named 'AmazonS3Sample.mp4' which is a video file. The table has columns for Name, Type, Last modified, and Size. The object 'AmazonS3Sample.mp4' is listed with a type of 'mp4', a last modified date of 'May 30, 2023, 14:00:19 (UTC+07:00)', and a size of '22.4 MB'.

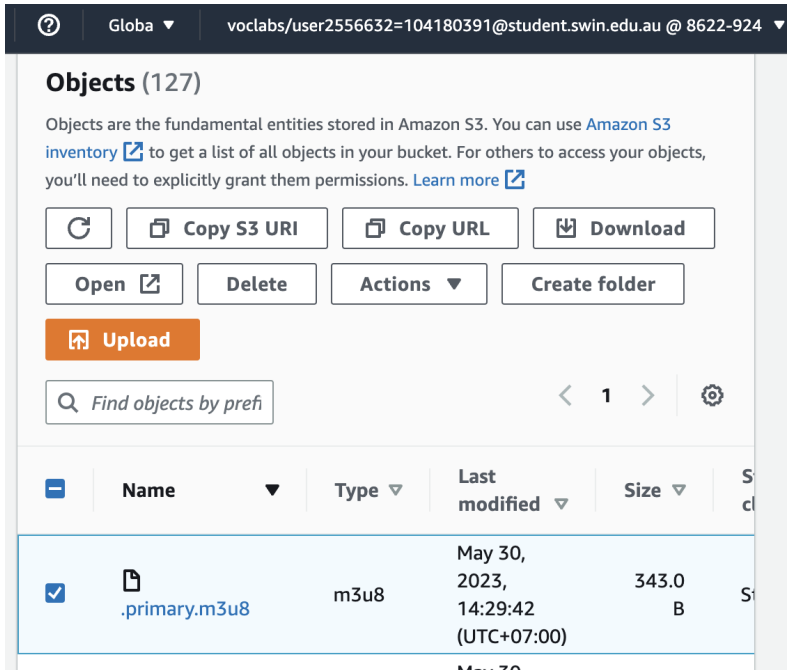

4	On the Services menu, choose CloudFront .	 <p>The screenshot shows the AWS console's Services search bar with 'cloudfront' entered. Below the search bar, there are tabs for 'Services (1)', 'Resources New', 'Blogs (263)', 'Documentation (6,737)', 'Knowledge Articles (13)', and 'Tutorials (1)'. The 'CloudFront' service is listed as 'Global Content Delivery Network'.</p>
5	Choose Create Distribution .	 <p>The screenshot shows the 'Amazon CloudFront' landing page with the headline 'Securely deliver content with low latency and high transfer speeds'. On the right, there is a 'Get started with CloudFront' section with a 'Create a CloudFront distribution' button.</p>
6	Configuration: <ul style="list-style-type: none"> - Select the Origin domain field. A list of S3 buckets will appear. Choose the one that was created earlier that has awstrainingreinvent as part of the file name. - Under Origin access select Public. 	 <p>The screenshot shows the 'Origin' configuration page in the AWS console. The 'Origin domain' field is populated with 'c84296a1795493141828291w8622-awstrainingreinvent-1a6x8m8mh2fba.s3.'. The 'Origin path' field is empty. The 'Name' field is populated with 'c84296a1795493141828291w8622-awstrainingreinvent-1a6x8m8mh2fba.s3.us-east-'. Under 'Origin access', the 'Public' radio button is selected.</p>
7	Choose Create distribution .	 <p>The screenshot shows the 'Standard logging' configuration page. The 'Standard logging' section has a toggle for 'Off'. The 'IPv6' section has a toggle for 'On'. The 'Description - optional' field is empty. At the bottom, there are 'Cancel' and 'Create distribution' buttons.</p>

8	<p>In the AWS Management Console, on the Services menu, choose Elastic Transcoder.</p>	
9	<p>Choose Create a new Pipeline.</p>	
10	<ul style="list-style-type: none"> - For Pipeline Name, enter InputPipeline - For Input Bucket, select the awstrainingreinvent S3 bucket. - For IAM Role, select AmazonElasticTranscoder Role. - In the Configuration for Amazon S3 Bucket for Transcoded Files and Playlists section, enter the following information: <ul style="list-style-type: none"> + Under Bucket, select awstrainingreinvent S3 bucket. + Under Storage Class, select Standard. - In the Configuration for Amazon S3 Bucket for Thumbnails section, enter the following information: <ul style="list-style-type: none"> + Under Bucket, select awstrainingreinvent S3 bucket. + Under Storage Class, select ReducedRedundancy. 	

11	On the Pipelines page, choose Create New Job .	<div><div><div>Try the New File-Based Video Processing Option</div><div>AWS Elemental MediaConvert is a new file-based video transcoding service that provides a comprehensive suite of advanced transcoding features, with Basic tier rates starting at \$0.0075/minute. Read more or try MediaConvert</div></div><div><div>Pipelines</div><div><div>Create New Job</div><div>Edit</div><div>Pause</div><div>Activate</div><div>Remove</div></div></div><div><div>Jobs</div><div>Presets</div></div><div><div>▼ Summary</div><div><div>ARN</div><div>arn:aws:elastictranscoder:us-east-1:862292406877:pipeline/1685431050020-vr7u0</div></div><div><div>Name</div><div>InputPipeline</div></div><div><div>Pipeline ID</div><div>1685431050020-vr7u0</div></div><div><div>Status</div><div>Active</div></div><div><div>Input Bucket</div><div>c84296a1795493d418282911w8622-awstrainingreinvent-1a6x8m8mh2fba</div></div></div></div>
12	<ul style="list-style-type: none">- For Pipeline, select InputPipeline.- For Output Key Prefix, enter output/.- For Input Key, select the input file labeled input/AmazonS3Sample.mp4.- For Preset, select System preset: HLS 2M- For Segment Duration, enter 10 (which is the HLS default).- For Output Key, enter the unique prefix HLS20M to name the segments created using this preset	<div><div>Create a New Transcoding Job</div><div>A job contains all of the information that Elastic Transcoder needs to transcode one media file into another format. When you create a job, it's automatically added to the pipeline that you specify.</div><div><div>Pipeline</div><div>InputPipeline</div></div><div><div>Output Key Prefix</div><div>/output</div></div><div><div>Input Details (1 of 1)</div><div><div>Input Key</div><div>input/AmazonS3Sample.mp4</div></div><div><div>Decryption Parameters</div><div><div>None</div><div>Enter information</div></div></div><div><div>Available Settings</div><div><div>Clip</div><div>Input Captions</div></div></div><div><div>+ Add Another Input</div></div></div><div><div>Output Details (1 of 1)</div><div><div>Preset</div><div>System preset: HLS 2M</div></div><div><div>Segment Duration</div><div>10</div></div><div><div>Output Key</div><div>HLS20M</div></div><div><div>Segment Filename Preview</div><div>HLS20M000000.ts</div></div><div><div>Create Thumbnails</div><div><div>No</div><div>Yes</div></div></div><div><div>Output Rotation (Clockwise)</div><div>auto</div></div><div><div>Encryption Parameters</div><div>To protect your HLS Outputs, add an HLSv3 or HLSv4 playlist along with Content Protection information.</div></div><div><div>Available Settings</div><div><div>Output Captions</div></div></div></div></div>
13	Repeat the steps above to generate segments for presets HLS 1.5M and then provide the prefix names: HLS15M .	<div><div>Output Details (1 of 1)</div><div><div>Preset</div><div>System preset: HLS 1.5M</div></div><div><div>Segment Duration</div><div>10</div></div><div><div>Output Key</div><div>HLS15M</div></div><div><div>Segment Filename Preview</div><div>HLS15M000000.ts</div></div><div><div>Create Thumbnails</div><div><div>No</div><div>Yes</div></div></div><div><div>Output Rotation (Clockwise)</div><div>auto</div></div><div><div>Encryption Parameters</div><div>To protect your HLS Outputs, add an HLSv3 or HLSv4 playlist along with Content Protection information.</div></div><div><div>Available Settings</div><div><div>Output Captions</div></div></div></div>

14	<p>Repeat the steps above to generate segments for presets HLS 1M and then provide the prefix names: HLS10M.</p>	<div><div>Output Details (1 of 1)</div><div><div><div>Preset</div><div>System preset: HLS 1M</div><div></div></div><div><div>Segment Duration</div><div>10</div><div></div></div><div><div>Output Key</div><div>HLS10M</div><div></div></div><div><div>Segment Filename Preview</div><div>HLS10M00000.ts</div><div></div></div><div><div>Create Thumbnails</div><div><div>No</div><div>Yes</div><div></div></div></div><div><div>Output Rotation (Clockwise)</div><div>auto</div><div></div></div><div><div>Encryption Parameters</div><div>To protect your HLS Outputs, add an HLSv3 or HLSv4 playlist along with Content Protection information.</div></div><div><div>Available Settings</div><div><div>Output Captions</div><div></div></div></div></div></div>
15	<p>Under Playlists (Adaptive Streaming), choose Add Playlist, then configure:</p> <ul style="list-style-type: none">- Playlist Name: primary- Playlist Format: HLSv3- Select all the three outputs, which were entered in the previous section, to include them in this playlist by selecting the + option.- Choose Create New Job.	<div><div>Playlist (1 of 1)</div><div><div><div>Master Playlist Name</div><div>primary</div><div></div></div><div><div>Playlist Format</div><div>HLSv3</div><div></div></div><div><div>Outputs in Master Playlist</div><div>HLS20M</div><div></div><div></div><div></div></div><div><div>Outputs in Master Playlist</div><div>HLS15M</div><div></div><div></div><div></div></div><div><div>Outputs in Master Playlist</div><div>HLS10M</div><div></div><div></div><div></div></div><div><div>Content Protection</div><div><div>None</div><div>HLS AES</div><div>PlayReady DRM</div></div><div></div></div><div><div>+ Add Playlist</div></div><div><div>▶ User Metadata (Optional)</div></div></div><div><div>Cancel</div><div>Create New Job</div></div></div>
16	<p>The transcoding process should complete within a minute.</p>	<div><div><div>Services</div><div>elastic Beanstalk</div><div></div><div></div><div></div><div></div><div>N. Virgi</div><div>voclabs/user2556632-104180391@student.swin.edu.au @ 862</div></div><div><div>Pipelines</div><div>Jobs</div><div>Presets</div></div><div><div>Summary</div><div><div><div>ARN</div><div>arn:aws:elastictranscoder:us-east-1:862292406877:job/1685431758547-4h3gs0</div><div>Number Of Inputs 1</div></div><div><div>Job ID</div><div>1685431758547-4h3gs0</div><div>Number Of Outputs 3</div></div><div><div>Pipeline</div><div>InputPipeline</div><div>Number Of Playlists 1</div></div><div><div>Pipeline ID</div><div>1685431050020-vn7u0</div><div>Job Status Progressing</div></div><div><div>Output Key Prefix</div><div>output/.</div></div></div></div></div>

17	<p>Select the Amazon CloudFront distribution that was previously created, and verify that the Distribution Status has changed from InProgress to Enabled.</p>	 <p>The screenshot shows the Amazon CloudFront console. At the top, there's a navigation bar with the user's email 'voclabs/user2556632=104180391@student.swin.edu.au'. Below the navigation bar, the breadcrumb trail reads 'CloudFront > Distributions'. The main content area shows a list of distributions. The first distribution is 'd3ie7nv6...' with a status of 'Enabled' (indicated by a green checkmark). The 'Create distribution' button is visible in orange.</p>
18	<p>Choose Distribution Settings. Copy the Domain Name and paste it into a text editor.</p>	 <p>The screenshot shows the 'Distribution Settings' page for the distribution 'EF6VVY6KBXGB8'. The 'General' tab is selected. Under the 'Details' section, the 'Distribution domain name' is listed as 'd3ie7nv6wdngbk.cloudfront.net'. The 'ARN' is 'arn:aws:cloudfront::862292406877:distribution/EF6VVY6KBXGB8'. The 'Last modified' date is 'May 30, 2023 at 7:15:15 AM UTC'.</p>

19	<p>On the Services menu, choose S3. Select the awstrainingreinvent S3 bucket. Open the output folder (which contains the output of the transcoding job) and select the primary.m3u8 playlist file.</p> <p>In a text editor, construct the URL by appending /output/primary.m3u8 to the end of the CloudFront domain name.</p>	 <p>The screenshot shows the Amazon S3 console interface. At the top, the user is logged in as 'voclabs/user2556632=104180391@student.swin.edu.au @ 8622-924'. The main heading is 'Objects (127)'. Below this, there's a brief explanation of objects and links for 'Amazon S3 inventory' and 'Learn more'. A row of buttons includes 'Refresh', 'Copy S3 URI', 'Copy URL', 'Download', 'Open', 'Delete', 'Actions', and 'Create folder'. An orange 'Upload' button is also present. A search bar says 'Find objects by prefix'. Below the search bar is a table with columns: 'Name', 'Type', 'Last modified', 'Size', and 'Storage class'. One object is listed: '.primary.m3u8' of type 'm3u8', last modified on 'May 30, 2023, 14:29:42 (UTC+07:00)', with a size of '343.0 B' and storage class 'Standard'. The object is selected with a blue checkmark.</p>
20	<p>The stream should start playing on the device and dynamically request the relevant segments based on bandwidth and CPU conditions.</p>	 <p>The screenshot shows a presentation slide from Amazon Web Services. On the left is a stick figure character wearing a white shirt and a yellow tie. To its right is the 'amazon web services' logo. Further right, it says 'Training and Certification'. The main title of the slide is 'Introduction to Amazon Simple Storage Service (S3)'.</p>

21	All task completed and marked	Total score		40/40
		[Task 2] Distribution Created		5/5
		[Task 3A] Pipeline was created		5/5
		[Task 3B] Transcoded File Storage		5/5
		[Task 3C] Thumbnail File Storage		5/5
		[Task 3D] Output Key Prefix		5/5
		[Task 3E] Output Presets		5/5
		[Task 3F] Playlist Format		5/5
		[Task 3G] Playlist Outputs		5/5