AP® Computer Science Principles — Explore Performance Task: 2018 Scoring Guidelines and Notes

Reporting Category	Task	Scoring Criteria	Decision Rules	Scoring Notes
Row 1 **Using Development Processes and Tools**	COMP. ARTIFACT	The computational artifact: • Identifies the computing innovation. **AND** • Provides an illustration, representation, or explanation of the computing innovation's intended purpose, function, or effect.	The written response can be used to aid the understanding of **how** the computational artifact illustrates, represents, or explains the computing innovation's intended purpose, function, or effect. **Do NOT award a point if any one of the following is true:** • there is no artifact; • the artifact is not a computational artifact; • the innovation identified in the artifact does not match the innovation described in the written response; • the artifact does not identify the innovation clearly; • the artifact does not illustrate, represent or explain the innovation's intended purpose, function, or effect; • the artifact illustrates a feature of the innovation instead of the purpose, function, or effect; or • the written response describes the innovation's intended purpose and function without explaining how the computational artifact illustrates, represents, or explains the intended purpose, function, or effect.	• A computational artifact is something created by a human using a computer and can be, but is not limited to, a program, an image, an audio, a video, a presentation, or a Web page file. The computational artifact could solve a problem, show creative expression, or provide a viewer with new insight or knowledge. • A computing innovation is an innovation that includes a computer or program code as an integral part of its functionality.
Row 2 **Analyzing Impact of Computing**	RESPONSE 2A	• States a fact about the correctly identified computing innovation's intended purpose OR function.	**Do NOT award a point if:** • the identified innovation is not a computing innovation; or • the written statement gives an effect (which is required for the scoring criteria in Row 3, not Row 2).	• A computing innovation is an innovation that includes a computer or program code as an integral part of its functionality. • Computing innovations may be physical computing innovations such as Google glasses or self-driving cars, non-physical computer software like a cell phone app, or computing concepts such as e-commerce or social networking which rely on physical transactions conducted on the Internet. • Purpose means the intended goal or objective of the innovation. • Function means how the innovation works (e.g., consumes and produces data).
Row 3 **Analyzing Impact of Computing**	RESPONSE 2C	• Identifies at least ONE effect of the identified or described computing innovation.	The effect does not need to be specifically identified as beneficial or harmful. The effect must be identified, but it doesn't have to be described to earn the point. **Do NOT award a point if any one of the following is true:** • the described innovation is not a computing innovation; • the response does not state an effect (The purpose or function of the computing innovation is not the effect of the innovation.); or • the identified effect is not a result of the use of the innovation as intended (e.g., a self-driving car is not intended to crash, therefore, its exposure to hacking is not an effect of its intended use).	• An effect may be an impact, result, outcome, etc.
Row 4 **Analyzing Impact of Computing**	RESPONSE 2C	• Identifies a beneficial effect of the identified or described computing innovation. **AND** • Identifies a harmful effect of the identified or described computing innovation.	Responses that earn this point will also earn the point for Row 3. Responses should be evaluated on the rationale provided in the response not on the interpretation or inference on the part of the scorer. **Do NOT award a point if any one of the following is true:** • the described innovation is not a computing innovation; • the response is missing the adjectives harmful or beneficial (or synonyms thereof); • the response is missing a plausible beneficial effect; • the response is missing a plausible harmful effect; or • the identified effect is not a result of the use of the innovation as intended (e.g., a self-driving car is not intended to crash, therefore, its exposure to hacking is not an effect of its intended use).	• An effect may be an impact, result, outcome, etc. • Beneficial and/or harmful effects are contextual and interpretive; identification includes both the classification of the effect as beneficial or harmful and justification for that classification.

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Row 5
 	
Analyzing Impact of Computing
	RESPONSE 2C	• Explains how ONE of the identified effects relates to society, economy, or culture.	Reponses that earn the point for this row must have earned the point for Row 3.
			
			Responses should be evaluated on the rationale provided in the response not on the interpretation or inference on the part of the scorer.
			
			Do NOT award a point if any one of the following is true:
			• the described innovation is not a computing innovation; or
			• the explanation does not connect one of the effects to society, economy, or culture.
				• Effects need to be related to society, economy, or culture and need to be connected to a group or individuals. Examples include but are not limited to:
				  o The innovation and impact of social media online access varies in different countries and in different socioeconomic groups (EK 7.4.1A)
				  o Mobile, wireless, and networked computing have an impact on innovation throughout the world (EK 7.4.1B)
				  o The global distribution of computing resources raises issues of equity, access and power (EK 7.4.1C)
				  o Groups and individuals are affected by the "digital divide" (EK 7.4.1D)
				  o Networks and infrastructure are supported by both commercial and governmental initiatives (EK 7.4.1E)

Row 6 **Analyzing Data and Information**	**RESPONSE 2D**	• Identifies the data that the identified or described computing innovation uses **AND** • Explains how that data is consumed, produced, OR transformed.	Responses should be evaluated on the rationale provided in the response not on the interpretation or inference on the part of the scorer. **Do NOT award a point if any one of the following is true:** • the described innovation is not a computing innovation; • the response does not state the specific name of the data or simply says "data"; • the response confuses or conflates the innovation with the data: response fails to explain what happens to the data; or • the response confuses the source of the data with the data.	• Data types include: integers, numbers, Booleans, text, image, video, audio, signals. Data that infer these types like fingerprints, temperature, music, length, pictures, etc. are allowed. • Data collection devices (e.g. sensors, cameras, etc.) are not data. • Large data sets include data such as transactions, measurements, texts, sounds, images, and videos. (EK 3.2.2A)
Row 7 **Analyzing Data and Information**	**RESPONSE 2D**	• Identify one data storage, data privacy, OR data security concern related to the identified or described computing innovation.	Responses should be evaluated on the rationale provided in the response not on the interpretation or inference on the part of the scorer. Responses can earn this point even if they refer to the data in a general without specifically identifying the data being used. **Do NOT award a point if any one of the following is true:** • the described innovation is not a computing innovation; or • the response identifies or describes a concern that is not related to data.	

Row 8
 	
Finding and Evaluating Information
	RESPONSE 2E & ARTIFACT / WRITTEN RESPONSE	• References, through in-text citation, at least 3 different sources.	The in-text citations can be in either the artifact or the written response.
			
			The in-text citations may be oral in the computational artifact.
			
			Do NOT award a point if any one of the following is true:
			• the response contains a list of sources only, no in-text citations;
			• the response contains less than three in-text citations; or
			• there are fewer than three sources cited, even if there are three or more in-text citations.
				• In-text citations may be provided in any way that acknowledges the source:
				  o According to…" or "As written in the New York Times…"
				  o Parenthetical
				  o Footnotes
				  o Numerical superscripts with corresponding footnote
				  o Number system with a corresponding reference