Computing Technology Stage 5 (Year 10) – sample assessment task 3 notification

**Enterprise systems – designing for user experience**

Contents

[Task description 2](#_Toc147752982)

[Submission details 3](#_Toc147752983)

[Steps to success 4](#_Toc147752984)

[What is the teacher looking for? 6](#_Toc147752985)

[Marking guidelines 7](#_Toc147752986)

[Student-facing rubric 8](#_Toc147752987)

[Student support material 12](#_Toc147752988)

[Additional information 13](#_Toc147752989)

[Assessment advice 13](#_Toc147752990)

[Assessment as a learning opportunity 13](#_Toc147752991)

[Differentiation advice 14](#_Toc147752992)

[Support and alignment 15](#_Toc147752993)

[Evidence base 16](#_Toc147752994)

# Task description

**Type of task:** design 2 wireframe prototypes for an app and create a ‘Designing for user experience’ research report.

**Outcomes being assessed:**

A student:

* manages, documents and explains individual and collaborative work practices **CT5-COL-01**
* explains how data is stored, transmitted and secured in digital systems and how information is communicated in a range of contexts **CT5-DAT-01**
* communicates ideas, processes and solutions using appropriate media **CT5-COM-01**

[Computing Technology 7–10 Syllabus](https://curriculum.nsw.edu.au/syllabuses/computing-technology-7-10-2022) © NSW Education Standards Authority (NESA) for and on behalf of the Crown in the State of New South Wales, 2022.

**Suggested weighting**: 20%

Individually, you are to research user experience and create a report showcasing your idea for an app and design 2 wireframes for your digital product.

Investigate a real-world problem or need that can be solved by developing an app which focuses on user experience design.

Your task will include identifying the purpose of your app, including the intended target market and the intended use.

To understand the user, you will break down the user experience into manageable parts including functional and non-functional requirements and describe the data flow.

Your task will include creating 2 wireframes to demonstrate the effectiveness of the design and should include media element placement, interactive components and links.

# Submission details

Students can submit their work digitally, including their project prototype and report documentation.

Students can present their prototype in class for peer and teacher review.

# Steps to success

Table 1 – assessment preparation schedule

|  |  |
| --- | --- |
| Steps | What I need to do/when I need to do it |
| Develop a report to document your software requirements specification | Prepare a document that will contain all required research and information for the report as outlined below. |
| Identify your chosen area/market for your app | Select from the following options:* pet tracker
* enhance posture
* watering plants
* shopping map
* smart fridge recipe generator
* fitness
* games account tracker
* chores.
 |
| Develop an introduction | Define and describe the purpose of your app, including the intended target market and the intended use. |
| App description | Explain the user needs for your app including who will be using it and how. What information is required for the app? |
| Functional requirements | Develop a functional requirements table for your chosen app including interface requirements. |
| Non-functional requirements | Develop a non-functional requirements table for your chosen app including performance, security and quality. |
| Data flow | Explain how data will be inputted, stored, transmitted, processed and outputted. |
| Wireframe | Create 2 wireframe prototypes of your app that meet the requirements you have set. This should include media element placement, interactive components and links. |

# What is the teacher looking for?

Students are to document and explain individual work practices as they develop a concept for an app and plan 2 wireframe prototypes.

This task will require students to choose from a list of relevant real-world problems or issues they can investigate. Their real-world problem should be researched to ensure they create an app that meets user expectations.

Understanding how to effectively use planning tools to enhance the user experience will be a pivotal focus for students.

# Marking guidelines

Table 2 – assessment marking guidelines

|  |  |
| --- | --- |
| Grade | Marking guideline descriptors |
| A | * The student demonstrates creativity and innovation in the design and implementation of user interfaces to create engaging user experiences.
* The student selects relevant data, media and processes to effectively communicate information in a range of contexts.
 |
| B | * The student demonstrates creativity in the design and implementation of user interfaces to create engaging user experiences.
* The student selects relevant data, media and processes to communicate appropriate information in a range of contexts.
 |
| C | * The student designs and implements user interfaces to create user experiences.
* The student selects appropriate data, media and processes to communicate information in a range of contexts.
 |
| D | * The student implements basic elements of user interface design to support user experiences.
* The student uses data to communicate basic information.
 |
| E | * The student identifies elements of user interfaces that contribute to user experiences.
* The student uses data to communicate information in a very limited way.
 |

# Student-facing rubric

Table 3 – rubric for assessment

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Criteria | Limited | Basic | Sound | High | Outstanding |
| Report introduction and app description | The introduction is missing or fails to provide any context or information about the purpose and scope of the report.The app description is unclear and the description does not match the app’s functionality. | The introduction provides little context or information about the purpose and scope of the report.The app description is not concise and the features and benefits of the app are not clearly outlined. | The introduction provides some background and states the purpose and scope of the report, but may not clearly preview the main points to be covered.The app description is somewhat clear and concise and the features and benefits of the app are outlined. | The introduction sets the context for the report and clearly states the purpose and scope. It previews the main points to be covered and is well-written, but may not be engaging.The app description is clear and concise and the features and benefits of the app are described. The description is mostly accurate and reflects the app’s functionality. | The introduction effectively sets the context for the report, clearly states the purpose and scope of the report, and previews the main points to be covered. It is well-written and engaging, and effectively hooks the reader's attention.The app description is clear and concise and the features and benefits of the app are clearly described. The description is accurate and reflects the app’s functionality. |
| Functional and non-functional requirements | Few functional and non-functional requirements are outlined.The proposed app is not functional, does not meet any desired specifications, and may not be usable. | Some functional and non-functional requirements are outlined.The proposed app may be difficult to use, not perform as desired, or have significant security or usability issues. | Most functional and non-functional requirements are described, but there may be some areas where the system falls short in performance, security or usability. | All functional and non-functional requirements are clearly described.The proposed app is efficient and user-friendly but may have some minor areas for improvement in performance, security or usability. | All functional and non-functional requirements are explained.The proposed app is highly efficient, user-friendly, and meets all performance, security and usability requirements. |
| Dataflow | No accurate stages of data handling (input, storage, transmission, processing and output) are outlined.The information is presented in an unclear and disorganised manner or is not evident. | Some stages of data handling (input, storage, transmission, processing and output) are outlined.The information is presented in an unclear and disorganised manner. | Some stages of data handling (input, storage, transmission, processing and output) are described.The information is presented in a somewhat logical and organised manner. | Most stages of data handling (input, storage, transmission, processing and output) are described.The information is presented in a logical and organised manner. | All stages of data handling (input, storage, transmission, processing and output) are explained clearly and accurately.The information, including technical terms and concepts, is presented in a logical and organised manner. |
| Wireframes | Wireframes consider some needs and goals of the target users, making it difficult for users to use the app.Navigation system is poorly designed and does not allow users to find the information they need.Wireframes have no consistent design language or layout, making it visually unappealing and difficult to understand.Wireframes do not include any necessary elements or functions. | Wireframes have significant usability issues, making it difficult for users to accomplish their goals.Navigation system is confusing and difficult to use.Wireframes have inconsistencies in design language and layout, making it difficult to understand.Wireframes are missing many necessary elements and functions, making it difficult for the app to work as intended. | Wireframes have some usability issues but are generally functional.Navigation system is functional but could be improved in terms of clarity and ease of use.Wireframes have some inconsistencies in design language and layout but are generally coherent. Wireframes are functional but could be improved in terms of the number of elements and functions included. | Wireframes mostly consider the needs and goals of the target users but could be improved in some areas.Navigation system is generally clear and easy to use but may have a few minor issues.Wireframes use a consistent design language but could be improved in terms of layout. Wireframes include most necessary elements and functions but are missing a few key features. | Wireframes consider the needs and goals of the target users, making it easy and intuitive to use.Navigation system is clear, intuitive, and easy to use. Users can easily find the information they need.Wireframes use a consistent design language and layout that is visually appealing and easy to understand.Wireframes include all necessary elements and functions for the app to work as intended. |

# Student support material

**Resources include:**

* Teacher resource with scaffolds, templates and graphic organisers for completing the task
* Teacher resource with additional information to support student understanding
* Program of learning.

# Additional information

This resource has been developed to assist teachers in NSW Department of Education schools to create learning that is contextualised to their classroom. It can be used as a basis for the teacher’s own program, assessment, or scope and sequence, or be used as an example of how the new curriculum could be implemented. The resource should be used with timeframes that are created by the teacher to meet the overall schedules of assessment.

For additional support or advice, contact the TAS curriculum team by emailing TAS@det.nsw.edu.au.

## Assessment advice

Assessment is a powerful tool to measure student learning and plan for the next stages in the learning process. Some considerations in using parts of this assessment notification are:

* Consider the skills, knowledge, and understanding students need to complete the task, and see where there are opportunities for them to refine these through ongoing feedback in the learning sequences associated with the assessment task.
* Ensure the language and readability of the task presents an appropriate challenge for the students the task is being used with. Direct, plain English will allow the greatest number of students to access the task independently.
* Marking guidelines should directly reflect the success criteria and outcomes of the task and align with appropriate levels of achievement for the relevant Stage.
* When constructing or adjusting the marking guidelines and/or rubric, try to keep active verbs like ‘do’, ‘say’, ‘make’, or ‘write’ in mind to measure student performance at each level. This will help to avoid subjective language.

## Assessment as a learning opportunity

Assessment can provide ways for students to use formal and informal feedback and self-assessment to help them understand where they are in their learning, where they are going, and how they are going to get there. It is essential that students receive feedback on their performance in the task and have opportunity to clarify and plan the next steps in learning.

* Clear and explicit marking rubrics can support effective self-assessment in relation to the learning intentions and success criteria, assisting students to become owners of their own learning. Students can then build their capacity for individual goal setting, which includes students asking questions such as, ‘What do I need to improve?’ and ‘What is my next step?’ ([CESE Growth goal setting – what works best in practice](https://education.nsw.gov.au/about-us/educational-data/cese/publications/practical-guides-for-educators/growth-goal-setting)).
* Greater learning gains may be made when teachers provide explicit descriptive feedback to students in a timely manner. This feedback supports students in forming their learning goals as well as helping the teacher to plan for the next iteration of the teaching and learning cycle.

### Differentiation advice

Differentiated learning can be enabled by differentiating the assessment approach to content, process, and product. Reasonable adjustments of assessment for students with disability is a legal requirement under the [*Disability Standards for Education 2005* (Cth)](https://www.dese.gov.au/disability-standards-education-2005). For students with a disability, adjustment in assessment tasks should be made through the [Collaborative curriculum planning](https://educationstandards.nsw.edu.au/wps/portal/nesa/k-10/diversity-in-learning/special-education/collaborative-curriculum-planning) process. For more information on differentiation, go to [Differentiating learning](https://education.nsw.gov.au/teaching-and-learning/professional-learning/teacher-quality-and-accreditation/strong-start-great-teachers/refining-practice/differentiating-learning) and [Differentiation](https://education.nsw.gov.au/campaigns/inclusive-practice-hub/primary-school/teaching-strategies/differentiation). When using this resource, teachers can use a range of [adjustments](https://education.nsw.gov.au/teaching-and-learning/disability-learning-and-support/personalised-support-for-learning/adjustments-to-teaching-and-learning) to ensure a personalised approach to student learning.

* Some common adjustments are available through the [Inclusive Practice hub assessment and reporting](https://education.nsw.gov.au/campaigns/inclusive-practice-hub/all-resources/secondary-resources/other-pdf-resources/nesa-assessment-and-reporting) site.
* The [Universal Design for Learning planning tool](https://education.nsw.gov.au/teaching-and-learning/learning-from-home/teaching-at-home/teaching-and-learning-resources/universal-design-for-learning) can be used to support the diverse learning needs of students using inclusive teaching and learning strategies.
* The [HPGE Differentiation Adjustment Tool](https://education.nsw.gov.au/teaching-and-learning/high-potential-and-gifted-education/supporting-educators/implement/differentiation-adjustment-strategies) and [Differentiation package](https://schoolsnsw.sharepoint.com/sites/HPGEHub/SitePages/Home.aspx#first-time-access-to-hpge-resources) can assist teachers to decide how to provide extension and additional challenge for High Potential and Gifted (HPG) students.

The steps below may be useful to consider when creating access opportunities for all students:

* remove unnecessary words/images
* simplify any tricky words or make a glossary of subject-specific words
* reduce the lexical density of the steps and use student-friendly language
* chunk large passages of reading or offer alternate ways of representing the information, such as a visual
* make the task description a checklist with numbered steps
* limit options and/or reduce the number of choices students need to make independently.

## Support and alignment

**Resource evaluation and support**: all curriculum resources are prepared through a rigorous process. Resources are periodically reviewed as part of our ongoing evaluation plan to ensure currency, relevance, and effectiveness. For additional support or advice contact the TAS curriculum team by emailing TAS@det.nsw.edu.au.

**Alignment to system priorities and/or needs:** [School Excellence Policy](https://education.nsw.gov.au/policy-library/policies/pd-2016-0468), [School Success Model.](https://education.nsw.gov.au/public-schools/school-success-model/school-success-model-explained)

**Alignment to the School Excellence Framework**: this resource supports the [School Excellence Framework](https://education.nsw.gov.au/policy-library/policies/pd-2016-0468) element of assessment (formative assessment, summative assessment, student engagement).

**Alignment to Australian Professional Teaching Standards**: this resource supports teachers to address [Australian Professional Teaching Standards](https://educationstandards.nsw.edu.au/wps/portal/nesa/teacher-accreditation/meeting-requirements/the-standards/proficient-teacher) 5.1.2, 5.4.2.

**Consulted with**: Curriculum and Reform subject matter experts

**NSW Syllabus**: Computing Technology 7-10

**Syllabus outcomes**: CT5-COL-01, CT5-DAT-01, CT5-COM-01

**Author**: TAS Curriculum Secondary Learners

**Publisher**: State of NSW, Department of Education

**Resource**: Assessment task notification

**Related resources**: further resources to support Stage 5 TAS can be found on the [TAS curriculum page](https://education.nsw.gov.au/teaching-and-learning/curriculum/tas).

**Professional learning**: relevant professional learning is available through the TAS statewide staffroom.

**Creation date**: 2023

**Rights**: © State of New South Wales, Department of Education.

# Evidence base

This resource contains NSW Curriculum and syllabus content. The NSW Curriculum is developed by the NSW Education Standards Authority. This content is prepared by NESA for and on behalf of the Crown in right of the State of New South Wales. The material is protected by Crown copyright.

Please refer to the NESA Copyright Disclaimer for more information <https://educationstandards.nsw.edu.au/wps/portal/nesa/mini-footer/copyright>.

NESA holds the only official and up-to-date versions of the NSW Curriculum and syllabus documents. Please visit the NSW Education Standards Authority (NESA) website <https://educationstandards.nsw.edu.au/> and the NSW Curriculum website <https://curriculum.nsw.edu.au/home>.

[Computing Technology 7–10 Syllabus](https://curriculum.nsw.edu.au/syllabuses/computing-technology-7-10-2022) © NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales, 2022.

Brookhart S (2018) ‘[Appropriate Criteria: Key to Effective Rubrics](https://www.frontiersin.org/articles/10.3389/feduc.2018.00022/full)’, *Frontiers in Education*, volume 3(22):1–12, doi:10.3389/feduc.2018.00022, accessed 29 August 2022.

CESE (Centre for Education Statistics and Evaluation) (2020) [*What works best: 2020 update*](https://education.nsw.gov.au/about-us/educational-data/cese/publications/research-reports/what-works-best-2020-update), NSW Department of Education, accessed 29 August 2022.

CESE (2020) [*What works best in practice*](https://education.nsw.gov.au/about-us/educational-data/cese/publications/practical-guides-for-educators-/what-works-best-in-practice), NSW Department of Education, accessed 29 August 2022.

CESE (2021) [*Growth goal setting – what works best in practice*](https://education.nsw.gov.au/about-us/educational-data/cese/publications/practical-guides-for-educators/growth-goal-setting), NSW Department of Education, accessed 29 August 2022.

Fisher D and Frey N (1 November 2009) ‘[Feed Up, Back, Forward](https://www.ascd.org/el/articles/feed-up-back-forward)’, *ASCD*, 67(3), accessed 21 September 2023.

Griffin P (2017) *Assessment for Teaching*, 2nd edn, Cambridge University Press, Port Melbourne, Victoria.

Hattie J and Timperley H (2007) ‘The Power of Feedback’, *Review of Educational Research*, 77(1): 81–112, https://doi.org/10.3102/003465430298487.

Panadero E and Jonsson A (2013) ‘[The use of scoring rubrics for formative assessment purposes revisited: A review](https://www.sciencedirect.com/science/article/abs/pii/S1747938X13000109?via%3Dihub)’, *Educational Research Review*, 9:129–144, doi:10.1016/j.edurev.2013.01.002, accessed 29 August 2022.

Sherrington T (2019) *Rosenshine’s Principles in Action*, John Catt Educational Limited Melton, Woodbridge.

Wiliam D (2018) Embedded Formative Assessment, 2nd edn, Solution Tree Press, Bloomington, IN.

**© State of New South Wales (Department of Education), 2023**

The copyright material published in this resource is subject to the *Copyright Act 1968* (Cth) and is owned by the NSW Department of Education or, where indicated, by a party other than the NSW Department of Education (third-party material).

Copyright material available in this resource and owned by the NSW Department of Education is licensed under a [Creative Commons Attribution 4.0 International (CC BY 4.0) license](https://creativecommons.org/licenses/by/4.0/).



This license allows you to share and adapt the material for any purpose, even commercially.

Attribution should be given to © State of New South Wales (Department of Education), 2023.

Material in this resource not available under a Creative Commons license:

* the NSW Department of Education logo, other logos and trademark-protected material
* material owned by a third party that has been reproduced with permission. You will need to obtain permission from the third party to reuse its material.

**Links to third-party material and websites**

Please note that the provided (reading/viewing material/list/links/texts) are a suggestion only and implies no endorsement, by the New South Wales Department of Education, of any author, publisher, or book title. School principals and teachers are best placed to assess the suitability of resources that would complement the curriculum and reflect the needs and interests of their students.

If you use the links provided in this document to access a third-party's website, you acknowledge that the terms of use, including licence terms set out on the third-party's website apply to the use which may be made of the materials on that third-party website or where permitted by the Copyright Act 1968 (Cth). The department accepts no responsibility for content on third-party websites.