

## ITGS Project Checklist – 2017 Onwards

Students should use the appropriate checklist before they submit a draft of each criterion to their teacher for feedback. Feedback is only allowed on one draft for each criterion.

The word count is different for each criterion as indicated. The total word count must not exceed 2000 words.

The responses throughout all of the criteria need to refer to the specific client, product, tools, resources and techniques used. Generic responses that could apply to any product of that type are likely to receive low marks.

Criterion A Initial consultation with client	
Evidence of consultation with the client is included.	
The client's name, position, date of consultation and how the interview was conducted are included at the top of the page.	
<p>The consultation includes questions and responses relating to:</p> <ul style="list-style-type: none"> <li>the nature of the client's problem(s) i.e. context or situation</li> <li>solutions that have been tried and an <b>explanation</b> of why they have not been totally successful</li> <li>possible IT solutions suggested by the client</li> <li>features/requirements the IT solution must include in order to solve the client's problem</li> </ul>	
The consultation is specific to the client and their problem.	
<b>The text in the Initial consultation is NOT included in the word count.</b>	

Criterion A: Initial Investigation (3 marks)	
Initial investigation	
<p>A client is identified.</p> <p>The client's position/company is briefly described. The problem is placed in a specific context.</p> <p><b><i>If another student 18 years old or younger is the client, there must be an adult co-client involved throughout the process.</i></b></p> <p><b><i>The ITGS teacher cannot be the client</i></b></p>	

The problem is <b>described</b> based on the information from the initial consultation with the client.	
<p>The inadequacies of the current system are <b>explained</b> based on the initial consultation with the client. This may include previous solutions, IT and non-IT, that have been tried to solve this problem and to what extent they were successful in addressing the problem.</p> <p>The explanation must be based on the initial consultation with the client, not the student's opinion.</p>	
Requirements of the IT solution (Product) are outlined. This can be a bullet-point list. If it is known what kind of product will be developed, this may be stated in Criterion A.	
<p>There is an explicit reference to the consultation and who was consulted.</p> <p>For example: An interview was conducted _____ (in person, using Skype, by email, etc.) on _____ (date) with _____ (name of client) who is _____ (position).</p> <p>There may be a quotation from the consultation, but this is not required.</p>	
<p><i>The Initial investigation is approximately 250 words.</i></p> <p><i>The word count should appear at the bottom of the page.</i></p>	

<b>Criterion B: Analysis (5 marks)</b>	
<i>The Analysis Form is used from Forms.zip</i>	
<p>There is a reference to the scenario In Criterion A. <b>ONE</b> ITGS Product is identified and briefly described. Other products that were considered may be indicated, but this is not required.</p> <p>A Product that requires the IB moderator to have specialized hardware in order to access the product is not an ITGS Product. For example, an IT solution requiring the use of a bar code scanner or RFID reader is not allowed.</p> <p>The justification for the choice of IT solution must be in the <i>Justification of chosen solution</i> at the bottom of Criterion B. No marks are awarded for justification stated in other sections of Criterion B.</p>	
<i>The text in the Analysis Form is NOT included in the word count</i>	
<b>Requirements specification</b>	
<b>IT system requirements</b> are listed with details about hardware, software including any IT systems and online services required for the IT Product.	

<p>System interaction is described. System interaction refers to the interaction that must work properly between the various hardware, software, IT systems and online services. It refers to two components (i.e. hardware, software, network services, online services) and how they must interact in order for the product to function.</p> <p>For example, if an image is edited in Adobe Photoshop CS 6, then the image needs to be able to load quickly on the website hosted in Google sites. This means that a jpg format will be used with appropriate resolution.</p>	
<p><b>Input / Output</b></p> <p>Input is briefly described and refers to the information (i.e. text, images, video and any other content) required to develop the IT solution and what input will be required to use the IT solution.</p> <p>Output is briefly described and be consistent with the client's requirements in Criterion A. It refers to the information that will be displayed and/or how it is displayed.</p>	
<p>The processing must include:</p> <ul style="list-style-type: none"> <li>• a list of processes needed to make the Product. For example, a process could be a music loop will be created in Audacity for the video introduction.</li> <li>• a list of processes in the Product to make it function properly. For example, clicking on the email link will generate a blank email that will be sent to the client.</li> </ul>	
<p>The security must include how to:</p> <ul style="list-style-type: none"> <li>• prevent access to the product or</li> <li>• protect access to the information contained in product.</li> </ul> <p>For example: a composite image is saved in jpg format instead of an Adobe Photoshop file so that the layers used to create the images cannot be accessed.</p>	
<b>Specific performance criteria</b>	
<p>Specific performance criteria (SPC) are clearly stated and make it possible to evaluate/measure the success of the product in Criterion F and provide a basis for the testing in Criterion D.</p>	
<p>The SPC are used to test specific features, content or functionality of the Product in Criterion D.</p>	
<p>The SPC are stated so that they can be evaluated in the feedback from the client and evaluated in Criterion F.</p> <p>This means each performance criterion is stated so that the success or failure of each criterion can be measured/tested/evaluated.</p>	
<p><b>The text in the Requirements Specification is NOT included in the word count.</b></p>	
<b>Justification of the proposed solution</b>	

A feasible Product is identified and described. It must relate to the problem, inadequacies and/or requirements stated in Criterion A.	
<p>The proposed solution is justified with a detailed explanation that includes relevant considerations such as:</p> <ul style="list-style-type: none"> <li>the proposed Product addresses the client's requirements for the IT solution</li> <li>why alternative solution(s) are not as feasible as the one that is chosen</li> <li>the client's hardware and software is compatible with the IT solution</li> <li>all of the necessary IT resources (i.e. hardware, software, network systems, online services) needed by the student and the client are available</li> <li>the Product can be created within the time constraints</li> <li>student has the skills or can acquire the skills that are required for creating the product</li> <li>content/data is available or can it be created to make a fully functional product</li> <li>financial considerations for development or access to /distribution of the Product</li> <li>security/privacy implications for the development and operation of the IT solution can be resolved.</li> <li>the training necessary for the client to use and maintain the proposed IT solution can be provided</li> <li>the product can be made available, accessed or distributed as required.</li> <li>other considerations includes: the client specifically wanted this type of IT solution, limitations In the IT systems available determined the solution that was chosen, etc.</li> </ul>	
<p>The <i>Justification of the Proposed Solution</i> section is approximately 350 words.</p> <p>The word count must appear at the end of this section.</p>	

Criterion C: Project schedule (3 marks)	
The <i>Project Schedule form</i> from <i>Forms.zip</i> is used.	
The project schedule refers to the IT solution identified in Criterion B and columns 1, 2, 3 and 6 are filled in before the project begins.	
<p>The project schedule provides a realistic plan and timeline for managing all stages in the development of the Product including research related to this type of product and the tools needed.</p> <p>Each stage of development must be included: planning, designing, developing, testing and implementing the IT solution.</p>	
The project schedule is updated by adding rows and also by adding entries in columns 4 and 5 throughout the entire Project development process from Criterion A through F.	
There is evidence of on-going contact with the client throughout the development.	

The entries must be specific to the client, problem and Product being developed and should not be generic entries that would apply to any Product of this type. This may include references to tools, resources, techniques, content, processes and policies used.	
The text in the <i>Project Schedule</i> is not included in the overall word count.	

<b>Criterion D: Product design (4 marks)</b>	
The Product design is completed for the solution identified in Criterion B.	
The <i>Product Design form from Forms.zip</i> is used.	
<p>The Product design includes a range of design levels: overall structure, internal structure and additional considerations for the design of the product.</p> <p>The overall structure, internal structure/internal layout must be appropriate for the type of product being developed.</p> <p>The overall structure and internal structure/internal layout are different for database, website, DTP, video, etc.</p> <p>Additional considerations include:</p> <ul style="list-style-type: none"> <li>• layout and content on individual pages of a DTP product or webpages,</li> <li>• tables, field definitions, queries and reports for a database</li> <li>• storyboard with related details for a video product.</li> </ul>	
The overall structure, internal structure and additional considerations for the design of the product must be of an appropriate size and legible. Where necessary appropriate techniques are used to include sketches within Criterion D.	
Where a product is created in a language other than the one used for the documentation, there must be a translation of key elements of design in the language used for the Project documentation.	
As Criterion D is completed before the product is developed, it must not contain screenshots of the final product.	
<p>The Product Design includes a detailed summary of the overall design and planning of the Product. This includes a list of ALL additional resources, not listed in Criterion B, required for the development of the Product with description.</p> <p>This includes the sources of all content material and resources that were consulted. Specific references are required and in a standard format.</p> <p>Hardware, software, IT systems and online services listed in Criterion B are not re-listed in Criterion D.</p>	

<p>The product design includes list of <b>appropriate</b> techniques.</p> <p>At least 3 non-basic appropriate techniques must be included (see the <i>Guidance on the appropriateness and of an IT solution</i>). These techniques are highlighted in Criterion E.</p> <p>Students may wish to include more than 3 non-basic appropriate techniques.</p> <p>The list may include some of the basic techniques used in the product, but these will not be highlighted in Criterion E.</p>	
<p>The test plan addresses all of the main types of tests appropriate to the product and relates to the SPC identified in Criterion B. The method used for testing and the outcome of the test is recorded.</p>	
<p>The product design is presented in sufficient detail for an IT-literate third party to understand how the product was created.</p>	
<p>There is evidence of agreement from the client to develop the product (signature and date).</p>	
<p><b>The text for the Product Design is NOT included in the overall word count.</b></p>	

<b>Criterion E: Product development (7 marks)</b>	
<p>The product developed must be same one identified in Criterion B, Criterion C and Criterion D.</p>	
<p>At least 3 non-basic appropriate techniques used to develop the product are listed at the top of the page in the order that they will be explained.</p> <p>‘Non-basic’ and ‘appropriate’ techniques are listed in the document <i>Guidance on the appropriateness of an IT solution</i> which is used as the basis for assessing this criterion.</p>	
<p>The overall structure of the product has been presented with an explanation of why it is appropriate.</p> <p>Product structure may be either:</p> <ul style="list-style-type: none"> <li>• structure of the Product itself and/or</li> <li>• folder structure required for the Product</li> </ul> <p>Additional technical information that will support the functionality of the product has been provided. For example, web hosting or security information.</p>	
<p>The design in Criterion D is used to develop the product that is in the Product folder.</p> <p>Some minor deviations between the Product that was developed and the Product that was developed are allowed.</p>	
<p>At least three of the appropriate techniques identified in Criterion D are <b>explained</b>:</p>	

<ul style="list-style-type: none"> <li>• description of the technique and why it was used</li> <li>• annotated screenshots show the making of/use of the technique</li> <li>• cited reference using Harvard, MLA, APA or other standard style are provided as appropriate.</li> </ul> <p>Any reference material such as templates, program code, applets or other materials that have been used or modified must be acknowledged.</p>	
<p>Screenshots along with justifications (descriptions and explanations) have been used to illustrate the choice of the techniques used to develop the product <b>and why they are appropriate.</b></p> <p>All screenshots are referred to from the text. Arrows, circles, translations for non-English text are provided on the screenshots as needed. The screenshots must be large enough so that they are legible <b>when viewed on a laptop or small monitor.</b></p>	
<p><b>If code is used as an appropriate technique:</b></p> <ul style="list-style-type: none"> <li>• the source of the code must be cited</li> <li>• the changes that were made in the code from the original source are clearly indicated</li> <li>• the sections of the code that are responsible for the key 'actions' of the product must be annotated</li> <li>• An screenshot showing the outcome of the code must be included</li> </ul>	
<p><b>The Product Development is approximately 1,000 words.</b></p> <p><b>The word count must appear at the end of this section.</b></p>	

<b>Criterion F: Feedback from client</b>	
<p>Appropriate feedback has been obtained from the client <b>on a separate form</b> and includes:</p> <ul style="list-style-type: none"> <li>• Feedback on the process <b>is</b> used to develop the Product from the initial consultation through to implementation</li> <li>• The Product addresses the problem identified in criterion A and the evaluation addresses the SPCs stated in Criterion B.</li> <li>• To what extent each of the SPC in Criterion B are specifically met.</li> <li>• Recommendations for future development of this Product</li> </ul>	
The feedback from the client is linked to the cover page.	
The signature of the client and date are included.	
<b>The Feedback from the client is NOT included in the word count</b>	

<b>Criterion F: Product evaluation and future product development</b> <b>Product evaluation (4 marks)</b>	
The evaluation minimally refers to the SPC in Criterion B and the test plan in Criterion D. Additional evaluation of the product may be included as appropriate.	
The evaluation explicitly refers to the feedback obtained from the client. This is required.	
Each evaluation should indicate the extent to which the specific performance criterion was met and also provide evidence from the Product. A simple 'yes/no' response and restating of the specific performance criterion is not evaluation.	
<b>Recommendations for the Future Development of the Product</b>	
The recommendations are appropriate for the future development of this Product for this client. The recommendations may be from the client and/or may be only suggested by the student.	
Explain how possible future developments of the product will be of benefit to the client and/or other stakeholders.	
<i>The Product evaluation and future product development is approximately 400 words.</i> <i>The word count must appear at the end of this section.</i>	

<b>Criterion G: Required elements (4 marks)</b>	
<b>Evidence of testing and functionality</b>	
The Product has sufficient content to enable its effectiveness and functionality to be evaluated. For example, database with insufficient records to demonstrate full functionality is not accepted.	
The product has been thoroughly tested and is completely functional.	
The Product consists of only one product. For example, a Product that consists of a flyer, banner and brochure is not acceptable.	
The tests used to ensure the functionality correspond to those in the completed test plan in Criterion D and the SPC in Criterion B.	



Cover page	
cover_page.htm template from <i>Forms.zip</i> has been used.	
The school name and school number cannot be used.	
The cover page has been saved in HTM/HTML format.	
There is a link to the product in the Product folder. Wherever an online service also hosts the product, the URL must be provided.	
If a password and/or directions are needed to access the product, they must appear on cover_page.htm	
File names and folder names and structures	
The <i>Product</i> folder contains all the product files. It is named <i>Product</i> and no other name is used.	
<p>The <i>Product</i> folder structure is intuitive and appropriate for the kind of Product that was developed. It allows files to be located easily.</p> <p>The main Product file is linked to cover_page.htm</p> <p>The project should be organized in such a way that there is evidence of:</p> <ul style="list-style-type: none"> <li>the use of appropriate file names to enable the client or an IT-literate third party to be able to locate and modify files if necessary</li> <li>the use of an appropriate file-naming convention that would allow either the client or an IT-literate third party to make future modifications to the product.</li> </ul> <p>If the product does not demonstrate appropriate file names and folder structures, this required element has not been fulfilled and no marks will be awarded.</p>	
<p>The <i>Documentation</i> folder is used and contains the 8 documentation files in pdf format. It is named <i>Documentation</i> and no other name is used.</p> <p>The folder may also contain the documents in the original format (doc, docx or other file format). These are not linked to cover_page.htm</p>	
<p>The files in the <i>Documentation</i> folder use the prescribed file names from <i>Forms.zip</i>. For example, <i>Crit_A_Initial_investigation.pdf</i> cannot be changed in any way. The file name must appear exactly this way.</p>	
All links work on cover_page.htm and link to the appropriate files in the <i>Documentation</i> folder and <i>Product</i> folder.	

There is appropriate choice of file names and folder names used in the <i>Product</i> folder.	
A link from cover_page.htm to the screencast is not required, but may be included.	
<b>Screencast</b>	
The screencast a maximum of 5 minutes.	
The audio must be clear without any background noise.	
The screencast must be of an appropriate screen size or resolution to be viewed/read on a computer monitor.	
<p>The screencast must show:</p> <ul style="list-style-type: none"> <li>• The Product is fully functional and all of the features are demonstrated. If the functionality of the product cannot be determined from the screencast, no marks will be awarded.</li> <li>• All of the content contained in the Product so that the Product can be evaluated from the screencast if the software used is not cross-platform. For example, Microsoft Access is not cross-platform and the screencast must be thorough.</li> <li>• At least 3 non-basic appropriate techniques used in the Product are presented.</li> </ul>	

<b>Final check</b>	
The organization of the Project prescribed in the Handbook of Procedures is adhered to.	
The Documentation has no more than 2,000 words.	
The links within the Product and cover_page.htm are relative. The Product is fully functional on computers other than the one that was used for development.	
The Project has been tested on computers in more than one location under different conditions.	
The correct forms have been used from <i>Forms.zip</i> and saved in pdf format.	
There are no appendices in the Project.	
<p>All of the files for the Product are in the Product folder.</p> <p>The Product folder may not be submitted empty. In cases where the final Product cannot be exported from the Internet service that it is hosted on, the Product folder must contain evidence from the making of the product.</p>	
<b>Student: Submission of the Project to the Teacher</b>	

<p>The final ITGS Project folder is submitted to the teacher. It is not zipped. This folder is named using the Candidate Personal ID code i.e. <i>abc123</i>. For example, <i>abc123_ITGS_Project</i>. No school name, school number, candidate name or candidate number is used.</p>	
---	--

The student folder, *abc123\_ITGS\_Project*, must include 4 items:

- *abc123\_cover\_page.htm* (no school name, no candidate name, no candidate number may be used on the page. *abc123* is used instead of the candidate name and candidate number)
- *abc123\_screencast.mp4*
- Documentation (the folder containing all documentation. The file names must be the same as *Forms.zip*)
- Product (the folder containing all files/folders used for the Product)

### Teacher: Final Preparation of the Project

It is recommended that a *Teacher Marks Justification* form (marks and comments for each of the criterion) is saved as a pdf file. This form is added to the student folder so that the moderator understands how the teacher awarded marks for each of the criteria. This form should be labelled, *abc123\_teacher\_justification*, to ensure that the correct *Teacher Marks Justification* form is included in the correct student folder.

Each student's folder will contain at most 5 items and no others.

The teacher will zip the student folder named with the Candidate Personal ID code (i.e. *abc123\_ITGS\_Project.zip*, *abc123\_ITGS\_Project.rar*).