

ACADEMIC SKILLS: WORKSHOP 1 COST ESTIMATION

TOPICUS TEAM 1:

Umair Aamir Mirza (s2928558)
Martin Demirev (s2965046)
Condu Alexandru-Stefan (s2769549)
Narendra Setty (s2944200)
Alexandru Lungu(s3006301)
Teodor Pintilie (s2920344)

To justify the selection of the Story Points from a comparative sense, we cumulatively decided that the smallest increment that we could use as a comparative estimation was ID 6, but specifically the back-end component, which should ideally take around 1 hour.

Additionally, one of the requirements that will be investigated, as it relates to almost every interaction between the back-end and front-end, is the **secure transportation of data**.

Furthermore, we tried not to be incredibly optimistic in the distribution of story points, so it is important to recognize that the values for Duration and Story Points will not be exact in all cases. Some tasks may be completed quicker than others as contextual progress and development is important.

We split each requirement into tasks for the front-end and back-end, and assigned Story Points where applicable. Keeping them in line with Fibonacci Sequence was not possible all the time, but we recognize that the reason for doing so is to provide greater time flexibility, so we attempted to do the same by ensuring that the story points reflect the maximal time required to complete a task, any additional time is then allocated towards the testing of the feature developed.

<u>ID</u>	<u>User Story</u>	<u>MosCOW Priority</u>	<u>Story Points</u>	<u>Duration (hr)</u>
1	As a parent, I want to be able to submit a registration form in order to register my child with a desired school.	M	6	8

1.1	Front-End Requirements: <ul style="list-style-type: none"> ➤ Registration Page to Display Fields. ➤ Labeled Fields with Input Spaces (Horizontal Alignment) ➤ Validation to Ensure that Fields are Complete (if submitting). ➤ Correspondence with Back-end through Fetch (POST). ➤ Error Handling and User Error Protection. 		4	5
1.2	Back-End Requirements: <ul style="list-style-type: none"> ➤ Registration Resource POST method. ➤ Populate Database with Registration. ➤ Validate Fields for Submission. 		2	3 (assuming planning is done).
2	As a parent, I want to be able to modify my child's existing registration in order to update the necessary data when external changes occur.	M	5	6-7
2.1	Front-End Requirements: <ul style="list-style-type: none"> ➤ Dashboard Page to Show Registrations (On-Click Selection Specified). <ul style="list-style-type: none"> ○ Fetch() to query an existing registration for the sake of updating data. ➤ Linkage to Registration Page to Display Populated Fields. ➤ Validation to Ensure that Fields are Complete (if submitting). ➤ Correspondence with Back-end through Fetch (PUT). ➤ Error Handling and User Error Protection. 		2	3
2.2	Back-End Requirements: <ul style="list-style-type: none"> ➤ Registration Resource GET Method. ➤ Registration Resource PUT Method. ➤ Update Database. ➤ Validate Fields and Status Validation. 		3	3-4 (assuming planning is done).
3	As a parent, I want to be able to delete my child's registration in case my child is no longer attending a particular school.	M	5	7-8
3.1	Front-End Requirements: <ul style="list-style-type: none"> ➤ DELETE button available near a Registration. <ul style="list-style-type: none"> ○ [Will open a view of the Registration (fetch GET).] ○ Confirmation required. ➤ fetch DELETE Request. ➤ Error Handling and User Error Protection. 		2	3

3.2	Back-End Requirements: <ul style="list-style-type: none"> ➤ Registration Resource GET Method. ➤ Registration Resource DELETE Method. ➤ Updating Database. ➤ Validating Delete Request (if inbound from the appropriate user). 		3	4-5
4	As a parent, I want to be able to create an account to easily access the relevant information and permissions to manage my child's registration(s).	M	7	9-10
4.1	Front-End Requirements: <ul style="list-style-type: none"> ➤ Create an Account Page. ➤ Secure Transportation of Account Data to Back-End (tokens and encryption). ➤ Error Handling and User Error Protection. 		3	4
4.2	Back-End Requirements: <ul style="list-style-type: none"> ➤ Account Resource POST. ➤ Secure Receiving of Account Data (tokens and encryption). ➤ Secure Update to Database (passwords stored encrypted). 		4	5-6
5	As a parent, I want to be able to see my registration(s) so that I can check whether the details I have submitted are correct.	M	7	7-9
5.1	Front-End Requirements: <ul style="list-style-type: none"> ➤ Only after successful login. ➤ Displayed all registrations as cards on the Dashboard page. ➤ After clicking on a registration record, the details will be displayed on a new page. ➤ Labels and text fields. ➤ GET request. 		5	6-7
5.2	Back-End Requirements: <ul style="list-style-type: none"> ➤ The corresponding details have to be sent to the Front-End for display. ➤ Registrations resource for all registrations and registration for a particular one after clicking the button "View Form" (GET request). 		2	1-2
6	As a parent, I want to be able to see the status of my registration form so that I can check whether my child has been accepted.	M	3	4.5
6.1	Front-End Requirements: <ul style="list-style-type: none"> ➤ Only after successful login. 		2	3

	<ul style="list-style-type: none"> ➤ Displayed all registrations with their statuses visible to the parent on the Dashboard page. ➤ After clicking on a registration record, the details will be displayed on a new page. ➤ If a child has been accepted, then the buttons “Update” and “Delete” have to appear. ➤ GET request. 			
6.2	Back-End Requirements: <ul style="list-style-type: none"> ➤ The statuses of the registrations have to be correctly sent to the Front-End. ➤ Registrations resource for all registrations and registration for a particular one after clicking the button “View Form” (GET request). 		1	1.5
7	As a school administrator, I want to be able to view all registrations submitted for this school, so that I can stay updated about the latest developments.	M	3	3-5
7.1	Front-End Requirements: <ul style="list-style-type: none"> ➤ Only after successful login. ➤ GET request. ➤ Registrations are displayed as a list of possibly one-line blocks. ➤ On a block are shown: Name of a child, ID, status of their registration, and the buttons “Edit Form” and “View Form”. ➤ After clicking on a block or the “View Form” button, all details of the registration are displayed and the buttons “Accept” and “Decline” are present. 		2	2-3
7.2	Back-End Requirements: <ul style="list-style-type: none"> ➤ The corresponding details have to be sent to the Front-End for display. ➤ Registration resource for all registrations and registration for a particular one after clicking the button “View Form” (GET request). 		1	1-2
8	As a school administrator, I want to be able to modify/delete registrations to respond appropriately to registrations.	M	3	5
8.1	Front-End Requirements: <ul style="list-style-type: none"> ➤ Only after successful login. ➤ The options “Update” and “Delete” are visible. ➤ The textbox of the student ID must be disabled (and possibly grayed out) - it cannot be changed. ➤ All other textboxes are enabled. ➤ A clear message is displayed if a format of a record is incorrect. ➤ The updated record is communicated to the Back-End in an encrypted form. ➤ PUT and DELETE requests. 		2	3

8.2	Back-End Requirements: <ul style="list-style-type: none"> ➤ The corresponding details must be sent to the Front-End for display. ➤ The database must be updated with the changes (PUT and DELETE requests). ➤ If a registration is deleted, it is required to be on CASCADE. ➤ Registration resource for a particular registration. 		1	2
9	As a school administrator, I want to be able to accept or reject registration requests from parents to inform parents if their child has been accepted or not.	M	5	5-6
9.1	Front-end requirements: <ul style="list-style-type: none"> ➤ Each request on the list should include buttons to accept/reject registrations. ➤ Appropriate visual cues should be present (like green for accepted and red for rejected). ➤ If the School Administrator rejects a request, the status in the front-end should be updated to rejected (same for accept). <ul style="list-style-type: none"> ○ Refresh the page after action. ➤ Filter for accepted/rejected/pending requests. ➤ PUT requests. 		3	4
9.2	Back-end requirements: <ul style="list-style-type: none"> ➤ Update the status of the request (PUT). ➤ Database to store registration details. ➤ The registration is possibly deleted (on cascade) after a while if it has been declined. 		2	1-2
10	SEE BELOW THIS TABLE FOR EXPLANATION			
11	As a school administrator, I want to be able to modify the style and contents of the registration form to better suit the school and the data we require.	M	6	7-8
11.1	Front-end requirements: <ul style="list-style-type: none"> ➤ Customize individual form fields. ➤ Change the style of the form (color, font). 		2	3
11.2	Back-end requirements: <ul style="list-style-type: none"> ➤ Methods to change/add form fields. ➤ Database should be updated after the change. 		4	4-5
12	As a system admin, I want to be able to view all registrations so that I can check for mistakes and inappropriate input.	M	5	7.5

12.1	Front-end requirements: <ul style="list-style-type: none"> ➤ Option to filter registration requests. ➤ Display list of all registrations and their details. 		3	4.5
12.2	Back-end requirements: <ul style="list-style-type: none"> ➤ Provide methods to search and filter through the database 		2	3
13	As a user, I want to be able to log in securely to my account to perform my desired tasks.	S	6	9-10
13.1	Front-end requirements: <ul style="list-style-type: none"> ➤ Login page with fields for credentials including a password ➤ Alerts displayed when trying to log in with wrong credentials 		3	4.5-5
13.2	Back-end requirements: <ul style="list-style-type: none"> ➤ Passwords safely stored in the database(hashd) ➤ Encryption used when storing and retrieving passwords ➤ Checking system for credentials when users try to log in 		3	4.5-5
14	As a user, I want to be able to recover or reset my password in case it has been compromised or in case I have forgotten it.	S	8	12
14.1	Front-end requirements: <ul style="list-style-type: none"> ➤ Text with information for changing the password in the login page containing admin contact details. ➤ Request information to validate potential users (email). ➤ Process email and validate if valid with database. 		3	4.5
14.2	Back-end requirements: <ul style="list-style-type: none"> ➤ Change admin contact details if they changed. ➤ Potentially use authentication to send email for password change. 		5...	7.5-8 (likely much higher)
15	As a parent, I want to be able to contact support so that I can complete registrations with ease.	C	2	3
15.1	Front-end requirements: <ul style="list-style-type: none"> ➤ Contact information (email, phone number, etc.) displayed at the bottom of registration page 		1	1.5
15.2	Back-end requirements: <ul style="list-style-type: none"> ➤ Update the contact information if changed 		1	1.5
16	As a parent, I want to be able to add files to registration so that my child's registration is complete with all	C	7	10.5-11

	data.			
16.1	Front-end requirements: <ul style="list-style-type: none"> ➤ 'Add attachment" button on registration form page ➤ Text box for short description for each attachment ➤ Add attachments preview option when parents view their form as well as for admin 		4	6
16.2	Back-end requirements: <ul style="list-style-type: none"> ➤ Store the file in the server ➤ Retrieve a file from the server ➤ GET, POST, DELETE methods possible for attachments 		3	4.5-5
17	As a parent, I want to be able to download the registration form so that I can keep this information to myself.	C	3	4.5-5
17.1	Front-end requirements: <ul style="list-style-type: none"> ➤ A download button should be available on the screen where the user can download the filled-in registration form. 		2	3
17.2	Back-end requirements: <ul style="list-style-type: none"> ➤ Start the download when the button is clicked 		1	1.5
18	As a school administrator, I want to be able to add notes to existing registrations to inform other admins about further developments regarding a particular application/registration.	C	7	10.5
18.1	Front-end requirements: <ul style="list-style-type: none"> ➤ Add a box that is visible only to admins, where all the notes are shown 		3	4.5
18.2	Back-end requirements: <ul style="list-style-type: none"> ➤ Keep track of the notes for each registration(in the database) 		4	6
19	As a school administrator, I want to be able to export registrations from our school, for purposes required by the school.	C	6	8
19.1	Front-end requirements: <ul style="list-style-type: none"> ➤ An export button which can be clicked 		2	3

19.2	Back-end requirements: ➤ Convert the data into pdf or xls format		4	5
20	As a school administrator, I want to be able to close the registration form based on dates so that the school can more easily accommodate the appropriate number of students.	C	10	14-16
20.1	Front-end requirements: ➤ A calendar selector which allows dates to be picked for each registration		5	7-8
20.2	Back-end requirements: ➤ Keep track of registration closing dates ➤ Add a checker mechanism which checks every x amount of time if any of the closing dates are past due		5	7-8
21	As a school administrator, I want to be able to contact parents through the system to provide updates and instructions.	C	6	9
21.1	Front-end requirements: ➤ Add a message box that allows the admin user to send an email to the parent.		2	3
21.2	Back-end requirements: ➤ Forward the messages written in the chat box to the recipient, through a mailing client		4	6
22	As a School Admin or Topicus Admin, I want to be able to sort the registrations based on some criteria.	C	4	6
22.1	Front-end requirements: ➤ Add a 'sort by' drop-menu option		2	3
22.2	Back-end requirements: ➤ Implement a few sorting criteria, such as age, name, and gender		2	3

Potential MUST Have Requirement:

The reason that the following requirement was omitted from the table above is because we require more clarity from Topicus regarding the ability of parents to alter registrations. In certain scenarios, we believe that it would be necessary for parents to require permission to change data, but in other scenarios (such as an incomplete application), they should be able to edit data without requesting permission. Once clarity is provided, and if it is required, we will immediately place it in the corresponding numbered section.

10	As a school administrator, I want to receive requests for updating or deleting a student's registration before any final action is taken.	M	3	
10.1	Front-end requirements: <ul style="list-style-type: none"> ➤ After clicking the request, the changes should be displayed to School Admin. 		2	
10.2	Back-end requirements: <ul style="list-style-type: none"> ➤ Function to handle submission of requests to update/delete the registration. ➤ Database to store/track submitted requests. 		1	