








## astar-jira

project: behametrics-learn

sorted by: Key descending, then Sprint descending, then Priority descending, then Updated descending

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T	Key	Status	Sprint	Created	Updated	Summary	Acceptance criteria	Description
	BEL-176	READY FOR REVIEW	BEL Sprint 6, BEL Sprint 7	12/Feb/19	12/Feb/19	BEL-149 / <a href="#">Update readme file</a>		
	BEL-175	IN PROGRESS	BEL Sprint 6, BEL Sprint 7	12/Feb/19	12/Feb/19	BEL-151 / <a href="#">Create demo app server</a>		
	BEL-174	IN PROGRESS	BEL Sprint 6, BEL Sprint 7	10/Feb/19	10/Feb/19	BEL-149 / <a href="#">Sensors logging refactor</a>		
	BEL-173	DONE	BEL Sprint 6, BEL Sprint 7	10/Feb/19	10/Feb/19	BEL-149 / <a href="#">Touch events logging refactor</a>		
	BEL-172	DONE	BEL Sprint 6, BEL Sprint 7	09/Feb/19	10/Feb/19	BEL-149 / <a href="#">Module structure refactor</a>		
<input checked="" type="checkbox"/>	BEL-171	DONE	BEL Sprint 6	30/Jan/19	01/Feb/19	<a href="#">Action required: Let's Encrypt certificate renewals</a>		<p>Hello,</p> <p>Action may be required from breaking.</p> <p>If you already received information.</p> <p>Your Let's Encrypt client a certificate in the past addresses validated (r <a href="#">team04-18.studenti.f</a></p> <p>TLS-SNI-01 validation temporarily on February. Any certificates issued after their issuance date. You need to update your method (HTTP-01, DNS certificate renewals will expire.</p> <p>Our staging environment to test whether your site against staging: <a href="https://community.let">https://community.let</a></p> <p>If you're a Certbot user <a href="https://community.let">https://community.let</a></p> <p>Our forum has many questions. A question has been answered <a href="https://community.let">https://community.let</a></p> <p>For more information announcement: <a href="https://community.let/validation-support/74">https://community.let/validation-support/74</a></p> <p>Thank you,</p> <p>Let's Encrypt Staff</p>
	BEL-170	DONE	BEL Sprint 6, BEL Sprint 7	23/Jan/19	11/Feb/19	BEL-151 / <a href="#">Endpoint for result of authentication</a>		Request - Session id, user with data from g
	BEL-169	DONE	BEL Sprint 6, BEL Sprint 7	23/Jan/19	11/Feb/19	BEL-151 / <a href="#">Endpoint for model training</a>		Request will contain u save it to DB

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	BEL-168	READY FOR REVIEW	BEL Sprint 6	23/Jan/19	12/Feb/19	BEL-150 / Create web app		
	BEL-167	DONE	BEL Sprint 6	23/Jan/19	03/Feb/19	BEL-150 / Create interface in logger		1. Init 2. Start logging 3. End logging 4. Terminate sessi
	BEL-166	DONE	BEL Sprint 6, BEL Sprint 7	23/Jan/19	25/Jan/19	BEL-151 / Add arbitrary data to session information		Add custom data (ser
	BEL-165	DONE	BEL Sprint 6	23/Jan/19	03/Feb/19	BEL-150 / Add possibility of adding custom data when initializing session		
	BEL-164	IN REVIEW	BEL Sprint 6	19/Jan/19	12/Feb/19	BEL-162 / Refactor naming schemes		
	BEL-163	DONE	BEL Sprint 6	19/Jan/19	11/Feb/19	BEL-162 / Docker files cleanup		
	BEL-162	IN PROGRESS	BEL Sprint 6	19/Jan/19	19/Jan/19	Technical debt - ml module		
	BEL-161	TO DO		17/Jan/19	17/Jan/19	Make existing derived columns scalable w.r.t. number of inputs	Computed columns are visible in table with raw data.	A mouse has only one Mobile devices have t Leap Motion yields 3I fingertips, finger joint
	BEL-160	TO DO		17/Jan/19	17/Jan/19	Extract features from keystroke data specific for mobile devices		On mobile devices, w the presence of touch Columns: <ul style="list-style-type: none"><li>x- and y-offset from</li><li>all existing column</li></ul> In the future it is expected in the application bes
	BEL-159	TO DO		17/Jan/19	17/Jan/19	Extract advanced features from keystroke data		Advanced features: <ul style="list-style-type: none"><li>consider sequences</li><li>consider different characters, ...)</li><li>consider removal o</li></ul>
	BEL-158	TO DO		17/Jan/19	17/Jan/19	Extract mouse click-related features		The features are spec
	BEL-157	TO DO		17/Jan/19	17/Jan/19	Extract holistic movement features		The features are spec
	BEL-156	TO DO		17/Jan/19	17/Jan/19	Compute procedural angular columns		Columns to compute: <ul style="list-style-type: none"><li>the columns specif</li><li>angular acceleratio</li></ul>
	BEL-155	TO DO		17/Jan/19	17/Jan/19	Update Jira methodology		Add flow for: <ul style="list-style-type: none"><li>updating story in b</li></ul>
	BEL-154	TO DO		17/Jan/19	17/Jan/19	Apply advanced preprocessing methods to logged data during analysis		
	BEL-153	TO DO		20/Dec/18	20/Dec/18	Send remaining data on session end		
	BEL-152	TO DO	BEL Sprint 7	20/Dec/18	12/Feb/19	User authentication		
	BEL-151	TO DO	BEL Sprint 6, BEL Sprint 7	20/Dec/18	12/Feb/19	Store data for user authentication		
	BEL-150	TO DO	BEL Sprint 6	20/Dec/18	20/Dec/18	Collect data for user authentication		As an experiment par I want raw data to be

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	BEL-149	IN PROGRESS	BEL Sprint 6, BEL Sprint 7	20/Dec/18	12/Feb/19	Technical debt - logger module		
	BEL-148	TO DO	BEL Sprint 7	20/Dec/18	12/Feb/19	Create scenario for demo	Stories for demo implementation Document containing more technical info about demo application.	Plan demo execution.
	BEL-147	IN PROGRESS		20/Dec/18	09/Feb/19	Internal improvements		
	BEL-146	READY FOR REVIEW	BEL Sprint 6, BEL Sprint 7	20/Dec/18	12/Feb/19	BEL-144 / ml-module package		
	BEL-145	READY FOR REVIEW	BEL Sprint 6, BEL Sprint 7	20/Dec/18	12/Feb/19	BEL-144 / Logger package		
	BEL-144	IN PROGRESS	BEL Sprint 6, BEL Sprint 7	20/Dec/18	12/Feb/19	Modules packaging		Create NPM module f Create pip package (s
	BEL-143	DONE	BEL Sprint 5	19/Dec/18	20/Dec/18	BEL-124 / Create document with use cases		
	BEL-142	DONE	BEL Sprint 5	19/Dec/18	12/Feb/19	BEL-11 / Implement sensors frequency limiter		
	BEL-141	TO DO		12/Dec/18	17/Jan/19	Extract basic features from keystroke data		Basic features: <ul style="list-style-type: none"> <li>• dwell time</li> <li>• flight time - all 4 va</li> </ul>
	BEL-140	TO DO		12/Dec/18	17/Jan/19	Log keystroke data from virtual keyboard from mobile devices on the web		As a researcher, I want to log keystrok so that I can analyze l Raw data: the same k
	BEL-139	TO DO		12/Dec/18	17/Jan/19	Provide support for logging and analyzing keystroke data		As a researcher I want to log and ana so that I can experim
	BEL-138	TO DO		12/Dec/18	17/Jan/19	Log keystroke data from PC keyboard on the web		As a researcher, I want to log keystrok so that I can analyze l Raw data: <ul style="list-style-type: none"> <li>• timestamp</li> <li>• key</li> <li>• event type - key pr</li> <li>• active modifier key <ul style="list-style-type: none"> <li>◦ for a compre</li> </ul> </li> <li>• ...anything else?</li> </ul> N.B.: Logging and ser logging should be pe
	BEL-137	DONE	BEL Sprint 5	11/Dec/18	13/Dec/18	BEL-125 / Add info about session request to product docu		
	BEL-136	TO DO		11/Dec/18	17/Jan/19	Verify timestamp accuracy of logged data		
	BEL-135	DONE	BEL Sprint 5	11/Dec/18	13/Dec/18	BEL-125 / Modify big picture - more specific		
	BEL-134	DONE	BEL Sprint 5	11/Dec/18	13/Dec/18	BEL-125 / Specify fields in data format - logger module In product documentation		

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	BEL-133	DONE	BEL Sprint 5	11/Dec/18	12/Dec/18	BEL-126 / Code review slide		
	BEL-132	DONE	BEL Sprint 5	11/Dec/18	13/Dec/18	BEL-125 / Specify generation of technical documentation in "Dokumentácia"		
	BEL-131	DONE	BEL Sprint 5	11/Dec/18	20/Dec/18	BEL-62 / Create function for custom segment splitting		Create function that v 2 parameters - kwarg time before, after Start of segment is de End of segment is del
	BEL-130	TO DO		10/Dec/18	20/Dec/18	Production demo for end users		<a href="#">BEL-124</a>
	BEL-129	TO DO		06/Dec/18	06/Dec/18	Classify sequences of samples		As a researcher I want to classify sequ so that I can potentia Normally, we classify Sequence of samples <ul style="list-style-type: none"> <li>• n consecutive sampl</li> <li>• consecutive sample</li> </ul> To combine the classi <ul style="list-style-type: none"> <li>• majority voting for</li> <li>• weighted sum for p</li> </ul> While binary classifier very well not be a cak
	BEL-128	DONE	BEL Sprint 6	06/Dec/18	24/Jan/19	Docker-compose - add networks		
	BEL-127	TO DO		04/Dec/18	20/Dec/18	Select technique for handling class imbalance for user authentication		Default: No technique
	BEL-126	DONE	BEL Sprint 5	04/Dec/18	15/Dec/18	Presentation for MTS		Create and prepare p
	BEL-125	DONE	BEL Sprint 5	04/Dec/18	15/Dec/18	Documentation - WS final		Prepare documentati
	BEL-124	DONE	BEL Sprint 5	04/Dec/18	20/Dec/18	Create scenario for demo	Stories for demo implementation Document containing more technical info about demo application.	Plan demo execution.
	BEL-123	DONE	BEL Sprint 4, BEL Sprint 5	03/Dec/18	20/Dec/18	BEL-30 / Function for scalability results		
	BEL-122	DONE	BEL Sprint 4	03/Dec/18	13/Dec/18	BEL-36 / Create function for plotting FAR, FRR and EER		
	BEL-121	DONE	BEL Sprint 4, BEL Sprint 5	02/Dec/18	23/Jan/19	BEL-113 / Implement mobile events logging		Implementation of to deviceorientation: htt <a href="https://stackoverflow.com/questions/24644742/data-from-javascript-test">https://stackoverflow.com/questions/24644742/data-from-javascript-test</a> : <a href="https://whatweb.org/">https://whatweb.org/</a>
	BEL-120	DONE		28/Nov/18	04/Dec/18	Investigate & fix webpage deployment		<a href="https://gitlab.com/tp-">https://gitlab.com/tp-</a>
	BEL-119	TO DO		28/Nov/18	12/Dec/18	Interactive Data Analysis		As a researcher, I want I can perform the ana Inspiration: <ul style="list-style-type: none"> <li>• <a href="https://www.h2o.ai/">https://www.h2o.ai/</a></li> </ul>

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✓	BEL-118	DONE		27/Nov/18	20/Dec/18	Create survey about demo architecture possibilities		server -identifikuje sa sessio -stranka bude posiel -ked stranka da poky -model ulozit a zo str  stranka - dalsia aplik - vymysliet s  ML module - package
📌	BEL-117	TO DO		27/Nov/18	17/Jan/19	Split raw data to segments by difference in values of specified column(s)		Examples: difference i Exceeding a specified What if the column va
📌	BEL-116	DONE	BEL Sprint 4	27/Nov/18	13/Dec/18	BEL-89 / Create pipeline for callable object execution		Create class/function, also accepts paramet
📌	BEL-115	DONE	BEL Sprint 4	26/Nov/18	13/Dec/18	BEL-89 / Change implementation of authentication function		function in ml-modul should return datafra <ul style="list-style-type: none"><li>• user_train (id)</li><li>• real value (y_test)</li><li>• predicted (y_pred)</li><li>• probability 0</li><li>• probability 1</li></ul>
📌	BEL-114	TO DO		20/Nov/18	20/Dec/18	CLONE - Integration of data processing phases into pipeline		Phases: <ul style="list-style-type: none"><li>• derived column co</li><li>• feature extraction</li><li>• user authentication</li><li>• scalability evaluatic</li></ul>
📌	BEL-113	DONE	BEL Sprint 4, BEL Sprint 5	20/Nov/18	23/Jan/19	Log raw data from mobile devices	Show raw data in console	As a researcher I want to log raw data so that I can use the c Mobile devices = for Raw data to log: <ul style="list-style-type: none"><li>• touch screen<ul style="list-style-type: none"><li>◦ touch coordi</li><li>◦ timestamp (a</li><li>◦ touch pressu device)</li><li>◦ touch events</li><li>◦ touch identif</li></ul></li><li>• sensors (accelerom<ul style="list-style-type: none"><li>◦ values (accel</li><li>◦ timestamp</li></ul></li></ul> Need to solve infinite Some of the sensors ( this may help: <ul style="list-style-type: none"><li>• <a href="https://github.com">https://github.com</a>, References:</li><li>• <a href="https://developer.n">https://developer.n</a></li></ul>
📌	BEL-112	DONE	BEL Sprint 3	19/Nov/18	20/Nov/18	BEL-29 / Add functions to compute domain specific metrics		Calculate metrics FAR
📌	BEL-111	TO DO	BEL Sprint 6	19/Nov/18	11/Feb/19	BEL-106 / Error handling		
📌	BEL-110	DONE	BEL Sprint 6	16/Nov/18	20/Nov/18	BEL-106 / Add SAST checking		<a href="https://gitlab.com/he">https://gitlab.com/he</a> <a href="https://gitlab.com/he">https://gitlab.com/he</a>  e.g.: <a href="https://gitlab.com/tp-">https://gitlab.com/tp-</a>
📌	BEL-109	TO DO	BEL Sprint 6	15/Nov/18	11/Feb/19	BEL-106 / Documentation		docstrings readme
📌	BEL-108	DONE	BEL Sprint 6	15/Nov/18	11/Feb/19	BEL-106 / Repository structure		atleast move docker- <a href="https://gitlab.com/tp-">https://gitlab.com/tp-</a>

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	BEL-107	TO DO	BEL Sprint 6	15/Nov/18	15/Nov/18	BEL-106 / Improve logger detection		<a href="https://gitlab.com/tp-">https://gitlab.com/tp-</a>
	BEL-106	IN PROGRESS	BEL Sprint 6	15/Nov/18	11/Feb/19	Technical debt - server module		
	BEL-105	TO DO	BEL Sprint 6	15/Nov/18	11/Feb/19	BEL-106 / Implement logging in server module		<a href="http://flask.pocoo.org">http://flask.pocoo.org</a>
	BEL-104	TO DO		14/Nov/18	17/Jan/19	Specify hierarchy of criteria to split data to segments		To achieve ultimate fl (e.g. lists of lists) to th This very likely replac
	BEL-103	TO DO		13/Nov/18	17/Jan/19	Extract features from frequency domain		
	BEL-102	TO DO		13/Nov/18	20/Dec/18	Create demo implementation of authentication process		As users of our produ
	BEL-101	DONE	BEL Sprint 3	12/Nov/18	03/Dec/18	BEL-29 / Create pipeline for user authentication evaluation		Create pipeline which user. Subsequently cc
	BEL-100	DONE	BEL Sprint 3	12/Nov/18	20/Nov/18	BEL-29 / Add function for metrics calculation		Write function which predicted class labels
	BEL-99	DONE	BEL Sprint 3	12/Nov/18	20/Nov/18	BEL-29 / Write estimator which wraps classifier		Write estimator which train this classifier. On class labels for each s  no data balancing by
	BEL-98	DONE	BEL Sprint 3	12/Nov/18	20/Nov/18	BEL-29 / Write transformer which adds label column for user		Write transformer wh Output of this transfo <b>(1)</b> /not belongs <b>(0)</b> tc
	BEL-97	DONE	BEL Sprint 3	12/Nov/18	20/Nov/18	BEL-78 / Create function for data column name preprocess		Function should trans
	BEL-96	DONE	BEL Sprint 4	12/Nov/18	27/Nov/18	BEL-85 / Documentation of software engineering project	Documentation contains all described parts	Should cointan: <ul style="list-style-type: none"> <li>description of our p <ul style="list-style-type: none"> <li>what we wan</li> </ul> </li> <li>big picture <ul style="list-style-type: none"> <li>architecture</li> </ul> </li> <li>description of every</li> <li>technical documen</li> </ul>
	BEL-95	DONE	BEL Sprint 4	12/Nov/18	27/Nov/18	BEL-85 / Project management documentation	Documentation contain all described parts	Should cointan: <ul style="list-style-type: none"> <li>team members anc</li> <li>methodologies</li> <li>completed sprints <ul style="list-style-type: none"> <li>summarizatic</li> </ul> </li> <li>exports from JIRA</li> </ul>
	BEL-94	DONE	BEL Sprint 3	10/Nov/18	20/Nov/18	BEL-27 / Compute movement length for segment		Write functions which <ul style="list-style-type: none"> <li>trajectory length</li> <li>air distance from st</li> </ul>
	BEL-93	DONE	BEL Sprint 3	10/Nov/18	20/Nov/18	BEL-27 / Compute features for each segment		Write function to corr <ul style="list-style-type: none"> <li>average</li> <li>min</li> <li>max</li> <li>median</li> <li>lower quartile</li> <li>upper quartile</li> <li>inter quartilre rang</li> <li>duration</li> <li>start x</li> <li>start y</li> <li>end x</li> <li>end y</li> </ul> <p>Matej Končál suggest groupby column nam</p>

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	BEL-92	<span style="color: green;">DONE</span>	BEL Sprint 3	10/Nov/18	20/Nov/18	BEL-27 / <a href="#">Split segments to parts</a>		Write function to split <ul style="list-style-type: none"> <li>beginning - e.g. ide</li> <li>middle - e.g. identi</li> <li>end - e.g. identifier</li> </ul> Make function genera be passed to function
	BEL-91	<span style="color: green;">DONE</span>	BEL Sprint 3	07/Nov/18	17/Nov/18	BEL-84 / <a href="#">Find all possible columns</a>	For given mongo query find all possible keys in json.	Currently we are stori <pre style="border: 1px solid #ccc; padding: 5px; margin: 10px 0;">{   "sessionId": 24,   "timeStamp": 258   "eventType": "CU   "payload": {dyna   "sessionStartsAt }</pre> That dynamic part is p before we can start d
	BEL-90	<span style="color: gray;">TO DO</span>		07/Nov/18	14/Dec/18	<a href="#">Tag extracted features</a>		As a researcher I want to tag extracte so that I can better as modeling. Tags can help select r Example: <ul style="list-style-type: none"> <li>mean velocity - hig</li> <li>distinctiveness (for</li> <li>start/end x, y - hig</li> <li>authentication), bai</li> </ul> For each tag, each cla (journal articles, page
	BEL-89	<span style="color: green;">DONE</span>	BEL Sprint 4	07/Nov/18	20/Dec/18	<a href="#">Integration of data processing phases into pipeline</a>	Dataframe containing needed values. Calculated metrics from them.	Phases: <ul style="list-style-type: none"> <li>derived column coi</li> <li>feature extraction</li> <li>user authentication</li> </ul>
	BEL-88	<span style="color: green;">DONE</span>	BEL Sprint 3	07/Nov/18	19/Nov/18	BEL-84 / <a href="#">Implement data conversion</a>		Implement data conv
	BEL-87	<span style="color: green;">DONE</span>	BEL Sprint 3	07/Nov/18	07/Nov/18	BEL-84 / <a href="#">Finalize data format</a>		get correct column na  relates to <a href="#">BEL-78</a>
	BEL-86	<span style="color: green;">DONE</span>	BEL Sprint 3	07/Nov/18	20/Nov/18	BEL-84 / <a href="#">Expose endpoint for data retrieval</a>		Should accept sessior
	BEL-85	<span style="color: green;">DONE</span>	BEL Sprint 4	06/Nov/18	30/Nov/18	<a href="#">Documentation</a>		
	BEL-84	<span style="color: green;">DONE</span>	BEL Sprint 3	06/Nov/18	20/Nov/18	<a href="#">Generate dataset from our data</a>	Downloadable csv from our server	As a researcher, I want further processing.
<input checked="" type="checkbox"/>	BEL-83	<span style="color: green;">DONE</span>	BEL Sprint 3	06/Nov/18	27/Nov/18	<a href="#">Survey of logging possibilities from mobile devices</a>		Analyse possibilities c  Output should be sto document sensors no
	BEL-82	<span style="color: green;">DONE</span>	BEL Sprint 3	06/Nov/18	17/Nov/18	BEL-79 / <a href="#">Compute acceleration and jerk for each axis</a>		For each mouse move Matej Končál suggest compute output (e. g Use <a href="#">raw_logs.csv</a> from <a href="http://www2.fiit.stuba">http://www2.fiit.stuba</a> data from one user ar
	BEL-79	<span style="color: green;">DONE</span>	BEL Sprint 3	06/Nov/18	20/Nov/18	<a href="#">Compute speed related columns from raw data</a>	Computed columns are visible in table with raw data.	Compute additional c
	BEL-78	<span style="color: green;">DONE</span>	BEL Sprint 3	05/Nov/18	20/Nov/18	<a href="#">Adjust data to required format</a>	Dataset in required form (columns - time, x, y, id_user)	As a researcher I want Suggestion: create fui labels (time, x, y .. as v

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	BEL-77	<span>DONE</span>	BEL Sprint 2	05/Nov/18	05/Nov/18	BEL-8 / Interface for custom events		Allow user to program these events will have
	BEL-76	<span>DONE</span>	BEL Sprint 2	03/Nov/18	05/Nov/18	BEL-56 / Validate clients header		<a href="http://flask.pocoo.org">http://flask.pocoo.org</a> validate custom head <pre>headers: {   'Content-Type':   'Logger': 'fast }, You, a m</pre>
<input checked="" type="checkbox"/>	BEL-75	<span>DONE</span>	BEL Sprint 2	02/Nov/18	06/Nov/18	Prepare jupyter notebook for demo		Create jupyter notebc <ol style="list-style-type: none"> <li>1. load raw_logs.c</li> <li>2. demonstrate us</li> </ol>
	BEL-74	<span>DONE</span>	BEL Sprint 2	02/Nov/18	02/Nov/18	BEL-8 / Define data structure	Specified data structure	Define data structure
	BEL-73	<span>DONE</span>	BEL Sprint 2	02/Nov/18	05/Nov/18	BEL-56 / Use session ID in logged data		
<input checked="" type="checkbox"/>	BEL-72	<span>DONE</span>	BEL Sprint 3	02/Nov/18	20/Nov/18	Change demo implementation	builted lib removed from repo master version of demo deployed on gitlab-pages	Please stop building I Artifacts are available <a href="https://docs.gitlab.com/latest-artifacts">https://docs.gitlab.com/latest-artifacts</a> Please state this infor
	BEL-71	<span>DONE</span>	BEL Sprint 2	29/Oct/18	05/Nov/18	BEL-26 / Split events to segments		For each event identif according to time inte Matej Končál suggest identify split threshol Use raw_logs.csv from <a href="http://www2.fiit.stuba">http://www2.fiit.stuba</a> data from one user ar
	BEL-70	<span>DONE</span>	BEL Sprint 2	29/Oct/18	05/Nov/18	BEL-25 / Compute velocity and acceleration		For each mouse move Matej Končál suggest compute output (e. g Use raw_logs.csv from <a href="http://www2.fiit.stuba">http://www2.fiit.stuba</a> data from one user ar
	BEL-69	<span>DONE</span>	BEL Sprint 2	29/Oct/18	05/Nov/18	BEL-25 / Identify user sessions		For each event identif Matej Končál suggest time difference is less modify time threshol Use raw_logs.csv from <a href="http://www2.fiit.stuba">http://www2.fiit.stuba</a>
	BEL-68	<span>DONE</span>	BEL Sprint 2	29/Oct/18	05/Nov/18	BEL-25 / Create repository for ML module		Create repository with
	BEL-67	<span>DONE</span>	BEL Sprint 2	27/Oct/18	27/Oct/18	BEL-56 / Enable CORS and bulk insert on server-side		Configure the server t includes Content-Typ
	BEL-66	<span>DONE</span>	BEL Sprint 2	27/Oct/18	04/Nov/18	BEL-56 / Posting logged data to server		
	BEL-65	<span>DONE</span>	BEL Sprint 2	25/Oct/18	05/Nov/18	BEL-56 / Serve flask with gunicorn in production		Configure gunicorn tc
	BEL-64	<span>DONE</span>	BEL Sprint 2	25/Oct/18	02/Nov/18	BEL-56 / Server CI/CD refactor		<ul style="list-style-type: none"> <li>• fix docker image cr</li> <li>• replace '_' with '-' ir</li> </ul>
	BEL-63	<span>DONE</span>	BEL Sprint 2	23/Oct/18	05/Nov/18	BEL-52 / Advanced mouse clicks implementation		
	BEL-62	<span>DONE</span>	BEL Sprint 5	23/Oct/18	20/Dec/18	Apply predefined criteria for splitting raw data to segments	Dataframe containing segment id	Examples of split crite <ul style="list-style-type: none"> <li>• explicit events - for one segment (defin</li> </ul>











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	BEL-61	TO DO		23/Oct/18	17/Jan/19	Make existing derived columns scalable w.r.t. number of axes	Computed columns are visible in table with raw data.	<p>Mouse coordinates h: Mobile sensors such as Leap Motion hand/fin</p> <p>Each existing derived</p> <ul style="list-style-type: none"> <li>velocity, acceleration <ul style="list-style-type: none"> <li>separate for</li> <li>magnitude - three axes: xy</li> </ul> </li> <li>angular velocity - applicable (for three Tangential velocity is</li> </ul>
	BEL-60	DONE	BEL Sprint 2	23/Oct/18	03/Nov/18	BEL-56 / Model events in database		ideas: document per session event = meta + payload
	BEL-59	DONE	BEL Sprint 2	23/Oct/18	03/Nov/18	BEL-56 / Save session id in events		
	BEL-58	DONE	BEL Sprint 2	23/Oct/18	04/Nov/18	BEL-56 / Filter session data on server		
	BEL-57	DONE	BEL Sprint 2	23/Oct/18	03/Nov/18	BEL-56 / UID generation		
	BEL-56	DONE	BEL Sprint 2	23/Oct/18	06/Nov/18	Integrate logger with server	User is able to get data from session, identified by session id (shown on logger page)	As a researcher I want to store logged
	BEL-55	DONE	BEL Sprint 1	22/Oct/18	22/Oct/18	BEL-38 / Define goals of our project		<ul style="list-style-type: none"> <li>goals for this semester <ul style="list-style-type: none"> <li>what needs to</li> </ul> </li> <li>visions for the next</li> </ul>
	BEL-54	DONE	BEL Sprint 1	21/Oct/18	23/Oct/18	BEL-23 / Deploy develop to VM	current develop branch deployed to VM	setup deployment /run setup nginx
	BEL-53	DONE		16/Oct/18	23/Oct/18	Log User ID		As a researcher I want to log user ID so that I can distinguish How should we deter
	BEL-52	DONE	BEL Sprint 2	16/Oct/18	06/Nov/18	Log Mouse Clicks - Advanced	On scroll event, data should contain 2 properties for vertical and horizontal scroll amount delta. Mouse button property should contain all mouse click combinations.	<ul style="list-style-type: none"> <li>Logger should log</li> <li>Log scroll amount (</li> </ul>
	BEL-51	DONE		13/Oct/18	14/Oct/18	BEL-19 / Font webpage	Characters with diacritic are consistent with other characters	Characters with diacri
	BEL-50	DONE	BEL Sprint 1	10/Oct/18	21/Oct/18	BEL-23 / Tests and DI		Find correct way to test pytest some dependency injection tests.
	BEL-49	DONE	BEL Sprint 1	09/Oct/18	21/Oct/18	BEL-17 / Definition of ready		
	BEL-48	DONE	BEL Sprint 1	09/Oct/18	21/Oct/18	BEL-17 / Definition of done		
	BEL-47	DONE	BEL Sprint 1	09/Oct/18	22/Oct/18	BEL-17 / Product deployment methodology		
	BEL-46	DONE	BEL Sprint 1	09/Oct/18	22/Oct/18	BEL-38 / High-level product architecture		

T	Key	Status	Sprint	Created	Updated	Summary	Acceptance criteria	Description
	BEL-45	DONE	BEL Sprint 1	09/Oct/18	14/Oct/18	BEL-7 / Verify logging		Verify logging compo firefox: latest chrome: latest  ▪ > write all output t
	BEL-44	DONE	BEL Sprint 1	09/Oct/18	14/Oct/18	BEL-7 / Logging functionality		Method/observable w timestamp, x, y, event
	BEL-43	DONE	BEL Sprint 1	09/Oct/18	22/Oct/18	BEL-23 / Integrate server with database		Save data to database
	BEL-42	DONE	BEL Sprint 1	09/Oct/18	22/Oct/18	BEL-23 / Backend server		Select backend techn Expose endpoints for: 1. saving data 2. retrieving data  Setup repository + CI
	BEL-41	DONE	BEL Sprint 1	09/Oct/18	12/Oct/18	BEL-23 / Configure database system		Setup MongoDB on c
	BEL-40	DONE	BEL Sprint 1	09/Oct/18	21/Oct/18	BEL-17 / Methodologies for documentation		<a href="https://team04-18.stu">https://team04-18.stu</a>
	BEL-39	DONE	BEL Sprint 1	09/Oct/18	22/Oct/18	BEL-17 / Methodology for code review		
	BEL-38	DONE	BEL Sprint 1	09/Oct/18	22/Oct/18	Big picture		<a href="https://team04-18.stu">https://team04-18.stu</a>
	BEL-37	TO DO		09/Oct/18	28/Nov/18	Add events to raw data visualization		Events: <ul style="list-style-type: none"><li>device-specific (mc</li><li>custom</li></ul> Different types of eve
	BEL-36	DONE	BEL Sprint 4	09/Oct/18	13/Dec/18	Plot curves for FAR, FRR and EER	Plot per each user	x axis - classifier thres y axis - FAR curve, FRI This plot only applies (probability, distance, If the threshold variat each threshold value. Otherwise, select an ii If there is no threshol where the FAR becom
	BEL-35	TO DO	BEL Sprint 7	09/Oct/18	12/Feb/19	Plot DET curve		DET = detection error
	BEL-34	TO DO	BEL Sprint 7	09/Oct/18	12/Feb/19	Plot ROC curve		ROC = receiver opera
	BEL-33	TO DO		09/Oct/18	17/Jan/19	Visualize segments		
	BEL-32	TO DO		09/Oct/18	17/Jan/19	Visualize raw data		
	BEL-31	TO DO		09/Oct/18	28/Nov/18	Visualization of raw data, events, preprocessed data and results		
	BEL-30	DONE	BEL Sprint 4, BEL Sprint 5	09/Oct/18	15/Jan/19	Scalability of user model w.r.t. number of users	DataFrame containing metrics for each provided setting	As a researcher I want to be able to a in the model so that I can determin Example: Suppose I have data f identification for 5, 10 below e.g. 90% at 100 identification on the v

T	Key	Status	Sprint	Created	Updated	Summary	Acceptance criteria	Description
	BEL-29	DONE	BEL Sprint 3	09/Oct/18	20/Nov/18	User authentication	FP, FN rate for each user  mean, std and median for those metrics per user	Usually, for $n$ users fr <ul style="list-style-type: none"> <li>For each user: <ul style="list-style-type: none"> <li>make user th</li> <li>train model (</li> <li>test model</li> </ul> </li> <li>report metrics from <ul style="list-style-type: none"> <li>metrics for e:</li> <li>statistics - av</li> </ul> </li> </ul> Metrics <ul style="list-style-type: none"> <li>"typical" metrics fo</li> <li>domain-specific: FA</li> <li>User should be abl</li> </ul>
	BEL-28	TO DO		09/Oct/18	20/Dec/18	Simplify training and testing of user models for experiments		
	BEL-27	DONE	BEL Sprint 3	09/Oct/18	20/Nov/18	Extract features from segments	Dataframe containing user_id, session_id, segment and all new columns.	<ul style="list-style-type: none"> <li>For each segment <ul style="list-style-type: none"> <li>average</li> <li>min</li> <li>max</li> <li>median</li> <li>lower quartil</li> <li>upper quartil</li> <li>Inter quartilr</li> </ul> </li> <li>Calculate those fea by count of points</li> <li>Calculate duration,</li> </ul>
	BEL-26	DONE	BEL Sprint 2	09/Oct/18	06/Nov/18	Split raw data to time interval and silence segments	User is able to get data by session with segments criteria (time intervals - silence, combination)	Data should be tagge combination of both.
	BEL-25	DONE	BEL Sprint 2	09/Oct/18	06/Nov/18	Compute speed related columns from raw data	Computed columns are visible in table with raw data.	Compute additional c
	BEL-24	TO DO		09/Oct/18	17/Jan/19	Apply preprocessing methods to logged data during analysis		
	BEL-23	DONE	BEL Sprint 1	09/Oct/18	23/Oct/18	Store Logged Data	test of saving data (example input - json) and display correct data on retrieval	As a researcher I want to store logge so that I can later ana <ul style="list-style-type: none"> <li>display stored data</li> <li>technologies</li> </ul>
	BEL-22	DONE	BEL Sprint 1	08/Oct/18	22/Oct/18	BEL-17 / Methodology for version control	Defined methodologies for version control approved by all team members	Create methodologie:
	BEL-21	DONE	BEL Sprint 1	08/Oct/18	22/Oct/18	BEL-17 / Methodology for code writing	Defined methodologies for code writing approved by all team members	Create methodologie:
	BEL-20	DONE		08/Oct/18	23/Oct/18	Project kickoff		
	BEL-19	DONE		08/Oct/18	21/Oct/18	Team setup		
	BEL-18	DONE	BEL Sprint 1	08/Oct/18	15/Oct/18	BEL-17 / JIRA methodology		Create JIRA methodo
	BEL-17	DONE	BEL Sprint 1	08/Oct/18	22/Oct/18	Methodologies		Create all required m

T	Key	Status	Sprint	Created	Updated	Summary	Acceptance criteria	Description
	BEL-16	<span>DONE</span>		08/Oct/18	15/Oct/18	BEL-19 / <a href="#">Webpage</a>	Webpage meets all the minimum requirements. Webpage is available on team04-18.studenti.fiit.stuba.sk.	<b>Website minimum</b> <ul style="list-style-type: none"> <li>team name</li> <li>information about</li> <li>project plan</li> <li>current state of pla</li> <li>teammates roles</li> <li>links to documenta</li> <li>all interesting thing</li> </ul>
	BEL-15	<span>DONE</span>		08/Oct/18	08/Oct/18	BEL-19 / <a href="#">Team logo</a>	created logo of team	create logo of our tea <a href="https://logomakr.com">https://logomakr.com</a> <a href="https://team04-18.stu">https://team04-18.stu</a>
	BEL-14	<span>DONE</span>		08/Oct/18	09/Oct/18	BEL-19 / <a href="#">Assign roles</a>	Every team member has assigned role	Assign roles to every <ul style="list-style-type: none"> <li>scrum master - Mic</li> <li>documentation - N</li> <li>code quality (code</li> <li>frontend - Ján Vner</li> <li>server admin - Mat</li> <li>testing - Tomáš Jen</li> <li>implementation - N</li> </ul> <p>Discuss and figure ou versioning, backend ..</p>
	BEL-13	<span>DONE</span>		07/Oct/18	23/Oct/18	<a href="#">Log Session Metadata</a>		As a researcher I want to log informat so that I can distingui Fields: <ul style="list-style-type: none"> <li>session identifier</li> <li>user identifier</li> </ul>
	BEL-12	<span>TO DO</span>		07/Oct/18	17/Jan/19	<a href="#">Log device metadata</a>		As a researcher I want to log metadat so that I can distingui Fields: <ul style="list-style-type: none"> <li>type - mouse, mob</li> <li>device sensor - tou</li> <li>OS, version, model</li> <li>a unique device ide</li> </ul>
	BEL-11	<span>DONE</span>	BEL Sprint 5	07/Oct/18	12/Feb/19	<a href="#">Allow to choose frequency of logging from mobile devices</a>	Logged data visible on server for various frequency settings	As a researcher I want to be able to si in order to preserve w If chosen frequency e
	BEL-10	<span>DONE</span>		07/Oct/18	27/Nov/18	<a href="#">Allow to choose sensors to log from mobile devices</a>		As a researcher, I want to be able to e website so that I can obtain re website performance.
	BEL-9	<span>TO DO</span>		07/Oct/18	31/Jan/19	<a href="#">CLONE - Log raw data from mobile devices</a>		As a researcher I want to log raw data so that I can use the c Mobile devices = for i Raw data to log: <ul style="list-style-type: none"> <li>touch screen <ul style="list-style-type: none"> <li>touch size</li> <li>major and m</li> <li>touch pointe</li> </ul> </li> <li>sensors (except acc <ul style="list-style-type: none"> <li>values</li> <li>timestamp</li> </ul> </li> </ul> <p>Some of the sensors ( this may help:</p> <ul style="list-style-type: none"> <li><a href="https://github.com">https://github.com</a>, References:</li> <li><a href="https://developer.n">https://developer.n</a></li> </ul>

T	Key	Status	Sprint	Created	Updated	Summary	Acceptance criteria	Description
	BEL-8	DONE	BEL Sprint 2	06/Oct/18	06/Nov/18	<a href="#">Log Custom Events</a>	Logger should contain textfield and confirm button. After inserting custom event into textfield and button click the custom event is logged with all other attributes.	As a researcher I want to specify custom events so that I can enhance Events could be defined Examples: clicking or The number of fields should be logged (count) Logging custom even
	BEL-7	DONE	BEL Sprint 1	06/Oct/18	16/Oct/18	<a href="#">Log Mouse Raw Data</a>	List of log events in console	As a researcher I want to log raw data so that I can use the data to log; <ul style="list-style-type: none"> <li>• <b>log name of the event</b></li> <li>• coordinates (x, y)</li> <li>• timestamp - as precise as possible</li> <li>• event type - move, click <ul style="list-style-type: none"> <li>◦ in case of click: coordinates</li> </ul> </li> </ul> Additional comments <ul style="list-style-type: none"> <li>• browser and version <ul style="list-style-type: none"> <li>◦ chrome- latest</li> <li>◦ firefox- latest</li> </ul> </li> <li>• performance concerns</li> </ul> References: <ul style="list-style-type: none"> <li>• <a href="https://developer.mozilla.org/en-US/docs/Web/API/MouseEvent">https://developer.mozilla.org/en-US/docs/Web/API/MouseEvent</a></li> <li>• <a href="https://developer.mozilla.org/en-US/docs/Web/API/TouchEvent">https://developer.mozilla.org/en-US/docs/Web/API/TouchEvent</a></li> </ul>
	BEL-6	TO DO		06/Oct/18	20/Dec/18	<a href="#">Log and store raw data and events from websites</a>		
	BEL-5	DONE		06/Oct/18	15/Oct/18	BEL-1 / <a href="#">Current server deployment</a>	Test	setup CI for current server
	BEL-4	DONE		02/Oct/18	08/Oct/18	BEL-1 / <a href="#">Setup webpage deploy to VM</a>		Gitlab-CI -> copy to VM / create user, folder, r
	BEL-3	DONE		02/Oct/18	02/Oct/18	BEL-1 / <a href="#">TLS</a>		Dufam, ze let's encrypt Nahodit do nginxu.
	BEL-2	DONE		02/Oct/18	06/Oct/18	BEL-1 / <a href="#">Confluence</a>		Cakame na ramku: <a href="https://tfs.fiit.stuba.sk/id=8857">https://tfs.fiit.stuba.sk/id=8857</a>  Vyžera, ze to vie rozumiť <a href="https://hub.docker.com/">https://hub.docker.com/</a>
	BEL-1	DONE		02/Oct/18	15/Oct/18	<a href="#">VM setup</a>	VM is setup correctly (nginx, jira, confluence, firewall, product app, TLS) Website is created and deployed.	