# Azure DevOps – Skripta

U ovom dokumentu bit će opisani koraci potrebni za postavljanje organizacije, projekta i ploče sa zadacima koji su potrebni za izdradu projektnih isporuka ishoda učenja 3 i ishoda učenja 5

## Postavke organizacije i projekta

Kako bismo počeli rad s AzureDevops-om, posjećujemo poveznicu <u>https://azure.microsoft.com/en-us/products/devops</u> i odabiremo **Start Free** opciju. Potom će se prikazati standardi Microsoft ekran za prijavu.



Kada ste se prijavili trebali biste vidjeti sljedeći prikaz:



Na ovom ekranu trebali biste vidjeti listu organizacija te kolikom na pojedinu organizaciju, bit će vam prikazana lista projekata. Za početak, napravit ćemo novu organizaciju klikom na opciju **New** organization.

borna.skracic@algebra.hr	
Almost done	
Name your Azure DevOps organization	*
dev.azure.com/ pra-paad-test	
We'll host your projects in	
Europe	~
Enter the characters you see New Audio	
dhird I	

Ispunite potrebne podatke u formi, prvenstveno ime organizacije i regiju. Na poslijetku, ispunite captchu i kliknite **Continue.** 

Potom biste trebali dodati članove vašeg tima u novostvorenu organizaciju. Kliknite **Organization settings** i u lijevoj navigacijskoj traci stisnite **Users**.



Klikom na **Add users** trebao bi se otvoriti modal u kojem možete pretražiti vaše članove tema putem Algebra Microsoftovog računa. Pronađite korisnike i dodijelite **Stakeholder** kao **Access Level**, kako je prikazano na slici:

Add new users	×
Required fields are marked with an asterisk	
Users or Service Principals *	
💿 Derin Taranci   Student × Users or Service Principals	
Access level	
Stakeholder	$\sim$
Add to projects	
	$\sim$
Send email invites (to Users only)	
Cancel	Add



Nadalje, stvaramo naš prvi projekt. Ispunite formu za stvaranje novog projekta i stisnite **Create project**. Taj projekt predstavlja će Vaš PRA projekt i listu radnih zadataka.

Nažalost, novostvoreni projekt korisiti će proces imena "Default" koji ne dozvoljava stvaranje radnih zadataka koji je nužan za Agile tijek rada. Kako bismo doskočili tom problemu, potrebno je promijeniti proces u "Agile". Klikom na tipku **Organization settings** otvaraju postavke organizacije.

Azure DevOps pra-paad-te:	st / Settings / Overview	Q Search
Organization Cattin	Overview	
pra-paad-test	Name	
Q. Search Settings	pra-paad-test D	
General	Use the new URL: https://dev.azure.com/pra-paad-test/ Learn more about URLs	
B Overview	Privacy URL	
III Projects		
8# Users	Learn more about the Privacy URL	
₩ Billing	Description	
<ul> <li>Global notifications</li> </ul>	Add organization description	
ம் Usage		
G Extensions	Time zone	
Microsoft Entra	UTC V	
Security	Geography	
O Security overview	Europe Learn more about the Geographies	
Policies	Renion	
Permissions	North Europe	
Boards	Save  © Changes made will affect all projects and members of the organization	
% Process		
Dipeliper		
- ipenites	Organization Usage Limit	
Agent pools	Type Usage	
Deployment pools	Projects 0/1000	
00 Parallel jobs	WorkItemTags 0/150000	
OAuth configurations		
Repos		
A D A	Organization owner	
Repositories		

#### Zatim kliknite **Boards > Process**.

Azure DevOps pra-paad-test	: / Settings / Process	Q. Searc	h ∷≣ Ō @ & 85
Organization Settin pra-paad-test	All processes Processes Fields		⑦ Help
Q. Search Settings	Name	Description	Team projects
General	△ Basic (default)	This template is flexible for any process and great for teams getting started with Azure DevOps.	1
B Overview	Agile	This template is flexible and will work great for most teams using Agile planning methods, including those practi	cing Scrum. 0
Projects	≙ Serum	This template is for teams who follow the Scrum framework.	0
88 Users	A CMMI	This template is for more formal projects requiring a framework for process improvement and an auditable recor	d of decisions. 0
₩ Billing			
<ul> <li>Global notifications</li> </ul>			
dh Usage			
Microsoft Entra			
6 It.			
Security			
Security overview			
Policies     Permissions			
Boards			
Process			
Pipelines			
& Agent pools			
Settings			
Deployment pools			
00 Parallel jobs			
OAuth configurations			
Repos			
Repositories *			

Sada kliknite pod **Processes > Basic (default)**.

Azure DevOps pra-paad-test	t / Settings / Process		Q Search ﷺ ᠿ ⊕ & B5
	System processes cannot be customized. To add customization create an in	herited process.	
Organization Settin pra-paad-test	All processes > Basic		Tilter by work item type n
Q. Search Settings	Work item types Backlog levels Projects		
General	Name	Description	
B Overview	👑 Epic	Epics can be defined as a large piece of work that has one common objective. Use an Epic to track the progress of complex feature	es.
III Projects	â Issue	Issues track suggested improvements, changes or questions related to the project. Issues can also be used to break down an Epic	into smaller chunks of work.
84 Users	Task	Tasks track the actual work that needs to be done.	
<ul> <li>Global notifications</li> </ul>	5 <u>⊈</u> Test Case	Server-side data for a set of steps to be tested.	
dì Usage	🔞 Test Plan	Tracks test activities for a specific milestone or release.	
Extensions     Microsoft Entra	Ta Test Suite	Tracks test activites for a specific feature, requirement, or user story.	
Security			
O Security overview			
♀ Policies			
Permissions			
Boards			
Process			
Pipelines			
& Agent pools			
Settings			
** Deployment pools			
00 Parallel jobs			
OAuth configurations			
Repos			
Repositories			

#### Odaberite Projects.

Azure DevOps pra-paad-test	/ Settings / Process	Q Search	í≘ â © & BS
	System processes cannot be customized. To add customization create an inherited process.		
Organization Settin pra-paad-test	All processes > Basic		
Q Search Settings	Work item types Backlog levels Projects		
General	Name Description		
B Overview	TestProject		
III Projects			
84 Users			
₩ Billing			
<ul> <li>Global notifications</li> </ul>			
ம் Usage			
G Extensions			
Microsoft Entra			
Security			
<ul> <li>Security overview</li> </ul>			
Policies			
Permissions			
Boards			
% Process			
Pipelines			
& Agent pools			
Settings			
T Deployment pools			
00 Parallel jobs			
OAuth configurations			
Repos			
Repositories			

Trebali biste pod **Projects** viditi ime vašeg projekta. Prelaskom pokazivača iznad projekta trebala bi prikazati tri vertikalne točke koje predstavljaju dodatne opcije.

Azure DevOps pra-paad-test	/ Settings / Process		Q. Search	:= ā (	D &	BS
A	System processes cannot be customized. To add customization or	reate an inherited process.				
Organization Settin pra-paad-test	All processes > Basic					
Q. Search Settings	Work item types Backlog levels Projects					
General	Name	Description				
B Overview	TestProject	→ Change process				
Projects						
88 Users						
W Billing						
Global notifications						
All Usage						
Microsoft Entra						
o microsoft citita						
Security						
<ul> <li>Security overview</li> </ul>						
Permissions						
Boards						
% Process						
Pipelines						
& Agent pools						
Settings						
T Deployment pools						
00 Parallel jobs						
OAuth configurations						
Repos						
Repositories						_

Klik na spomenute točke otvara podizbornik. Odaberite **Change process** opciju.

Azure DevOps pra-paad-te	st / Settings / Process	Change the project process ×
Organization Settin	System processes cannot be customized. To add customization create an inherited process.	Change the process used by the project to another process.
pra-paad-test	All processes > Basic	
Q. Search Settings	Work item types Backlog levels Projects	Select a target process
Course 1	Name Description	Select a target process
General	TestProject	CMMI
B Overview		Agile
III Projects		Scrum
8# Users		
₩ Billing		
<ul> <li>Global notifications</li> </ul>		
ம் Usage		
G Extensions		
Microsoft Entra		
Security		
O Security overview		
♀ Policies		
Permissions		
Boards		
€, Process		
Pipelines		
å Agent pools		
Settings		
** Deployment pools		
00 Parallel jobs		
OAuth configurations		
Repos		Save
0 Paparitarian	•	

Na desnoj strani pojavit će se modal u kojem možete izabrati tip procesa za vaš projekt. Odaberite **Agile** i kliknite **Save**. Ignorirajte potencijalna upozorenja.

Vratite se na vaš prikaz vašeg projekta.

## Stvaranje radnih zadataka

Na stranici vašeg projekta, u lijevoj navigacijskoj traci, trebali biste vidjeti opciju **Boards.** Kliknite na **Work items** opciju.

Spremni ste za stvaranje vaših radnih zadataka! Kliknite na **New Work Item** i odaberite odgovarajući tip radnog zadataka (kao što je objašnjeno na predavanjima i vježbama): *epic, feature, user story, task* ili *test case*. Zapamtite da biste trebali podijeliti vaš projekt u više *epic-a* koji sadrže više *feature-a. Feature* sadrži više *user story-a* koji opisuju granuliziranu funkcionalnost kroz aspekt pojedinog korisnika (role) koristeći prirodni jezik (prisjetite se formata: "Kao <korisnik> želim <akcija>"). Svaki *user story* trebao bi sadržavati *task-ove* koji opisuju kako implementirati danu funkcionalnost. Za Ishod učenja 5, potrebno je također definirati barem jedan *test case* za svaki *user story*.



Work items



Za primjer napravimo epic naziva "Authentication" i povežimo ga sa feature-om koji ćemo stvoriti.

Azure DevOps pra-paad-test /	TestProject / Boards / Work items		Q Search ﷺ ඕ ℗ & BS
TestProject +	0 Try the New Boards Hub for improved performance, accessibility, and new features. <u>Click here</u> to learn more.		×
Overview	Work Items 5 Back to Work Items		
😇 Boards	W NEW EPIC *		
lo Work items	Authentication		
≣≅ Boards	🚱 Unassigned 🗇 0 comments Add tag		🖬 Save 🕚 🥍 🚥
= Backlogs	State New Area TestProject		
🕰 Sprints	Reason New Itegation TestProject		Details 🕄 🖉 🔋
₽ Queries	Description	Planning	Deployment
Delivery Plans	Click to add Description	Priority 2	To track releases associated with this work item, go to
Delivery Plans		– Risk	in your pipeline's Options menu. Learn more about
Cal Analytics views	Discussion	Effort	seproyment parks reporting
😰 Repos	Add a comment. Use # to link a work item. I to link a pull request, or @ to mention a person.		Development
Pipelines		Business Value	+ Add link
Lans		Time Criticality	Link an Azure Repos <u>commit</u> , <u>pull request</u> or <u>branch</u> to see the status of your development. You can also <u>create a branch</u> to get started.
Artifacts		Start Date	Related Work
_		Target Date	+ Add link ~
			Add an existing work item as a parent
		Classification	
		Value area Business	
Project settings			

Ispunite ime epic-a i kliknite Save.

Potom odaberite **Add link > New item**.

#### Deployment



To track releases associated with this work item, go to Releases and turn on deployment status reporting for Boards in your pipeline's Options menu. Learn more about deployment status reporting

### Development

#### + Add link



Link an Azure Repos <u>commit</u>, <u>pull request</u> or <u>branch</u> to see the status of your development. You can also <u>create a branch</u> to get started.

#### **Related Work**



Prikazat će se nova forma na kojoj trebate naznačiti ime zadatka i odabrati odgovarajući tip radnog zadatka (u ovom slučaju *feature*). **Link type** bi trebao biti **Child** budući da jedan *epic* sadrži više *feature-a*. Isto vrijedi za odnos *feature – user story, user story – task i user story – test case*. Na poslijetku, kliknite **Ok**.

Add link		
You are adding a link from:		
♥ W ③ 1 <u>Authentication</u> Updated a minute ago, ● New		
Link type		
Child		$\sim$
• Work item type		
Feature		$\sim$
Title		
User login		
Comment		
_		
	ОК	Cancel

Pokazat će vam se ekran za stvaranje novog radnog zadatka, provjerite odgovaraju li informacije i kliknite **Save & Close.** 

🗘 Asure DevOps: pra-paad-test / TestProject / Boards / Work-items		Q Search i≡ ₫ Φ δ	a BS
TestProject + 0 Try the New Boards Hub for improved performance, accessibility, and new features. <u>Click here</u> to lea	m more.		×
Cvervie     Vervie     Vervie     Vervie     Vervie		2* ×	
Boards 🕲 Unassigned 🕫 0 comments Add tag		🚼 Save & Close 🔻 🕐 🏸 🚥	
G Work ID State New Area TestProject			
Boards Resson New Iteration TestProject		Details 🕄 🔗 (1) 🔋	
= Backlog Description	Planning	Deployment	cic: 3m ago
Sprints Click to add Description	Priority 2 Risk	To track releases associated with this work item, go to Releases and turn on deployment status reporting for Boards in your pipeline's Options menu. Learn more about deployment status	
Discussion	54	reporting to te	D
Add a comment. Use # to link a work item, I to link a pull request, or @ to mention a person.	Effort	Development at	r boards
Cal Analytic	Business Value	+ Add link	
Repos	Time Criticality	Link an Azure Repos <u>commit</u> , <u>pull request</u> or <u>branch</u> to see the status of your development. You can also <u>create a branch</u> to get started.	
ripeine	Start Date	Related Work	to see a branch
Test Pla	Target Date	+ Add link ~	
Antiacts	Classification	Parent ₩	
	Value area Business		
	Dutantes s	A	
Project settings			

lmajte na umu da ćete morati spremiti promjene svaki put kada napravite nekakvu izmjenu na radnom zadatku.

## Izvoz ploče radnih zadataka

Kako bismo izvezli (eng. *export*) ploču radnih zadataka u CSV formatu (kako je navedeno u zahtjevima projektnog zadatka), napravit ćemo novi upit (eng. *query*). U lijevoj navigacijskog traki kliknite **Boards > Queries.** 

Azure DevOps pra-paad-test /	TestProject / Boards / Queries		Q. Search		;≡ ð	@ &	BS
TestProject +	Queries						
Overview	Favorites All + New query 🗅 New folder 🏹 Import Work Items			〒 Filter by	keywords		2
Boards	Tite	Last modified by					
Work items	<ul> <li>My Queries</li> </ul>						
#* Boards	目 Assigned to me	Borna Skračić updated just now					
- Baddaar	目 Followed work items	Borna Skračić updated just now					
-= backlogs	<ul> <li>Shared Queries</li> </ul>						
Sprints	No items in this folder.						
P Queries							
Delivery Plans							
Git Analytics views							
😢 Repos							
Pipelines							
👗 Test Plans							
Artifacts							
Project settings     《							

Potom klinkite na New query. Pod Type of query, odaberite Tree of work items.



Pod Type of tree, odaberite Parent/Child.

Queries	>	My	Queries
---------	---	----	---------

Results Editor Charts	D Run query	– New 🗸 🚦	Save query	り Rev	vert change
Type of query 🖫 Tree of work it	ems				
Filters for top level work items					
(🚍 And/Or	Field*				Operator
+ × 🗆	Work Item Type			$\sim$	=
+ 🗙 🗌 And 🛛 🗸	State			$\sim$	=
+ Add new clause					
Filters for linked work items					
( And/Or	Field*				Operator
+ × 🗆	Work Item Type			~	=
+ Add new clause					
Filter options		Type of tree			
Match top-level work items fi	rst 🗸 🗸	Parent/Child	$\sim$		
		Duplicate Of/Dup	olicate		
		Parent/Child			

Spremite upit pod **Shared queries** tako da i ostali članovi tima mogu koristiti taj upit.

	Operator	Value	
	New query	×	(
Type of tree Parent/Child	Name *		
	Enter name		
	Folder *		
	My Queries	~	
	✓ My Queries		
	No sub-tolders.		
	Shared Queries		
	No sub-folders.		

Run to see the query results.

Na poslijetku kliknite **Run** kako biste izvršili upit. Trebali biste vidjeti lijepi hijerahijski prikaz radnih zadataka.

C Azure Dev	Ops pra-paad-test /	TestProject /	Boards / C	Queries				Q. Search	i 🗄 🛈 🗞 🔒	
TestProjec	a +	Queries	Shared Que	eries → 🖫 tree → 🗠					8 work items 1 top level, 7 linked and	
Overview		Results Edi	itor Charts	▷ Run query + New > 🗟 Save query 🛋 Ren	ame 🙀 Save items	🖉 Column options 🖾 En	nail query 🛯 Copy query URL 🛓	Export to CSV	lof8 ↑ ↓ 🍸 Right ~ 🖉	
Boards			Work item	Title	Assigned To	State Tags	W EPIC 1			
		1	Epic	~ 👑 Authentication		* New	1 Authentication			
Work items	5	2	Feature	🗸 🝸 User login		New	(B) Unassigned	🧐 0 comments	E Save @ Follow @ () ?	
E <sup>a</sup> Boards		3	User Story	~ 📕 As a student, I want to login with my username and pass	word	New	Add tag			
= Backlogs		5	Task	8 (BE) Implement /login endpoint		* New				
0. Enciete		6	Task	😫 (FE) Make login form		New	State New	Area TestProjec		
sprints		7	Test Case	% Student can successfully login with valid credentials	Borna Skračić	Design	Reason 🗄 New	Iteration TestProjec		
P Queries		4	User Story	As a teacher, I want to login with my username and pass	word	@ New		Details 🕥 d		
Delivery Pla	ans	8	User Story	R as a student, I want to login with my username and pass	word	New	Description	Description		
Analytics vi	iews						Click to add Description			
Repos										
							Planning	De	ployment	
Pipelines							Priority		To track releases associated with this work	
A Test Plans							Rick		item, go to Releases and turn on deployment status reporting for Boards in	
-								-	your pipeline's Options menu. Learn more about deployment status reporting	
Artifacts							Effort			
							Regimere Velue	De	velopment	
							MARTINES VERVE	+	Add link	
							Time Criticality		Link an Azure Repos commit, pull request	
							Start Date		development. You can also <u>create a branch</u> to get started.	
							Target Date	Re	ated Work	
								+	Add link ~	
							Classification		Id an existing work item as a parent	
Project set	tings «						Value area Business	Chil T	d ∰ 2 User login Jpdated 2 minutes ago, ● New	

U alatnoj traci potražite **Export to CSV** kako biste izvezli radne zadatake u datoteku CSV formata.



To je to!

Ukoliko imate pitanja vezanih za projektni zadatak ili AzureDevops, slobodno se obratite na <u>borna.skracic@algebra.hr</u>.