GRADSKA KNJIŽNICA PAZIN

Translation to English was done using AI. Original in Croatian submitted by the applicant is provided below.

MY FIRST CODE: First steps in the world of coding with LEGO

Final narrative report

November 2025

Project title: MY FIRST CODE: First steps in the world of coding with LEGO
Grant recipient: City Library Pazin (Gradska knjižnica Pazin)
Grant amount: 1000 EUR
Project duration: October 2025

Introduction

The project **"MY FIRST CODE: First Steps into the World of Programming Using LEGO"** was implemented as part of the EU Code Week initiative, with financial support from the regional hub Profil Klett, which supported only three projects in Croatia and Slovenia, including the application submitted by the Pazin City Library. The program was designed with the aim of encouraging the early development of digital and logical competencies among children and introducing computational thinking through play, creativity, and hands-on activities.

The workshops were held during October 2025 at the premises of the Pazin City Library and in cooperation with educational institutions in Pazin. Through interactive activities using LEGO sets, children had the opportunity to become familiar with the basic principles of programming thinking, problem-solving, teamwork, and creative construction. The program was intended for preschool children, lower-grade primary school pupils, and children encountering these concepts for the first time.

The workshops were led by Sven Gerenčir, an experienced programmer with many years of experience in the STEM field, who conducted the activities in a structured and methodologically adapted manner, enabling children to clearly and understandably apply fundamental concepts of computational thinking.

Implemented Program and Number of Participants (Activities and Results)

As part of the EU Code Week initiative, three workshops were held at the Pazin City Library, in cooperation with Olga Ban Pazin Kindergarten and Vladimir Nazor Primary School Pazin. The workshops were intended for preschool children and first-grade pupils and were held over two days—Monday and Tuesday, 27 and 28 October 2025.

Although two workshops were initially planned, due to high interest the Library added an additional session (27 October at 5:00 p.m.).

A total of **63 children** participated in the project.

WORKSHOP	NUMBER OF PARTICIPANTS
27.10.2025	21
27.10.2025	22
28.10.2025	20

Observed Improvements in Children's Competencies

During the workshops, several positive changes were observed in the development of key competencies among children:

Development of logical thinking
By using LEGO bricks, children practiced sequencing, pattern recognition, and basic logical structures, representing an early form of programming thinking.

Creativity and problem-solving
Activities encouraged children to explore, test, and refine their ideas. Tasks were open-ended, allowing children to independently find different solutions.

Collaboration and communication
Working in pairs or small groups contributed to the development of social skills, teamwork, and the ability to negotiate. Children learned to explain their process and listen to others' suggestions.

Development of digital pre-literacy
Although the focus was on physical LEGO elements, children learned fundamental concepts that precede formal programming: sequencing of actions, causality, structured problem-solving, and solution testing.

Innovations and Adaptations Developed During the Workshops

The project stood out due to its innovative approach combining:

- LEGO bricks as a didactic tool for introducing programming thinking
- learning through play, specifically adapted to the cognitive development of children aged 5 to 12

- adaptation of activities to suit age, short attention spans, and the natural need for movement

During implementation, the workshop leader, programmer Sven Gerenčir, adjusted the pace and tasks to the dynamics of each group. As children showed great interest, the workshops were enhanced with additional micro-challenges (e.g., expanding constructions, changing the order of blocks, simulating "code" through movement).

This approach ensured maximum engagement and participation while allowing flexibility and individualized learning.

Lessons Learned and Recommendations (Challenges and lessons learned)

The implementation of the workshops led to several useful conclusions:

- Working in smaller groups proved to be highly effective, as it enables higher-quality interaction and allows the facilitator to take an individual approach to each child.
- Cooperation with the kindergarten and primary school proved crucial for a good response and should be further formalized in the future through longer-term partnerships.
- The use of LEGO bricks as a didactic medium proved very effective, especially for children without prior programming experience, as it enables unobtrusive acquisition of logical concepts and facilitates first contact with computational thinking.
- Participant interest indicates a need to continue the program, including advanced workshops for older children and additional afternoon sessions.
- To better tailor the program to the needs of children and educational partners in the future, the introduction of formal evaluation is recommended, for example through short questionnaires for children and their educators or teachers.

Dissemination and Community Engagement

The project was promoted via the Pazin City Library website and partner institutions, ensuring timely community awareness of the activities.

Links to articles published on the Kampanja portal:
https://www.kampanja.net/obrazovanje/eu-code-week-u-gradskoj-knjiznici-pazin-prvi-koraci-u-svijet-programiranja-uz-lego/

https://www.kampanja.net/kultura/knjiznica-se-ukljucila-u-europsku-inicijativu-eu-code-week/

Program announcements on the Istarski.hr portal:
https://istarski.hr/node/119229-hvalevrijedan-iskorak-pazinske-knjiznice-djeca-uce-programirati-uz-lego-kocke

Program announcement on the IstraIN.hr portal:
https://istrain.hr/ostalo/zanimljivosti/68fc8ca8b5036/eu-code-week-u-gradskoj-knjiznici-pazin-prvi-koraci-u-svijet-programiranja-uz-lego/vijest

The project was also mentioned on the Skole.hr portal:
https://www.skole.hr/tri-projekta-iz-hrvatske-i-slovenije-nagradena-u-sklopu-eu-code-weeka/

Other links:
https://gk-pazin.hr/my-first-code-prvi-koraci-u-svijet-programiranja-uz-lego/
https://www.facebook.com/gradskaknjiznica.pazin/photos/na%C5%A1-novi-projekt-my-first-code-prvi-koraci-u-svijet-programiranja-uz-lego-koji-j/1382831753849642/
https://www.istra24.hr/kultura/my-first-code-u-gradskoj-knjiznici-pazin-radionica-za-djecu-koja-zele-napraviti-svoje-prve-korake-u-svijetu-kodiranja
https://gk-pazin.hr/my-first-code-prvi-koraci-u-svijet-programiranja-uz-lego-3/

Cooperation with the kindergarten and primary school resulted in strong parental interest, and positive feedback encouraged the planning of additional workshop sessions.

Posts and photographs from the workshops contributed to the project's visibility, and interaction on the library's social media channels showed that the community is highly supportive of programs that encourage early STEM interest.

Documentation and Photographic Materials

Part of the workshop atmosphere was documented through photographs published on the library's social media platforms (Facebook and Instagram):

https://www.facebook.com/gradskaknjiznica.pazin/posts/1386748263457991
https://www.facebook.com/gradskaknjiznica.pazin/posts/1389618863170931
https://www.facebook.com/gradskaknjiznica.pazin/posts/1387917726674378

Financial Summary

As part of the implementation of activities during EU Code Week, certain costs were incurred that were necessary for the high-quality organization and execution of the program. All listed expenses are supported by appropriate material evidence, including a cost table as well as invoices and contracts, which are provided.

The first expense relates to an honorarium in the amount of EUR 200.00, which was paid for professional work, preparation, and facilitation of activities related to the program. Furthermore, for the purposes of visual communication and promotion of the event, the design of stickers, posters, and flyers was commissioned, amounting to EUR 300.00. These materials were necessary to attract participants and to clearly inform them about the content and schedule of the activities.

For the delivery of workshops and the practical parts of the program, materials (LEGO bricks) were purchased in a total amount of EUR 182.39. The LEGO bricks were used for educational purposes, as a tool to encourage creativity and logical thinking among participants.

The printing of promotional materials and stickers cost EUR 317.00. The printed materials ensured the visibility of the event in the school and local community and contributed to the professional presentation of the activities.

The total costs of implementing the activities during EU Code Week amount to EUR 999.39.

Conclusion

The **“My First Code”** program proved to be an extremely successful introduction to the world of programming for the youngest EU Code Week participants in Pazin. The innovative combination of LEGO bricks, play, and logic created a motivating and stimulating environment in which children spontaneously adopted the foundations of programming thinking. Cooperation with local educational institutions, good attendance, and positive reactions highlight the importance and need for the continuation of such programs.

An additional value lies in the fact that the LEGO bricks remain available to children even after the workshops end, enabling continued play, exploration, and spontaneous learning within the library space, thereby deepening the impact of the activities and encouraging further creative development.

Studeni, 2025. godine

1. Uvod

Projekt „MY FIRST CODE: prvi koraci u svijet programiranja uz LEGO“ proveden je u okviru inicijative EU Code Week, uz financijsku potporu regionalnog huba Profil Klett, koji je za Hrvatsku i Sloveniju podržao samo tri projekta, među kojima i prijavu Gradske knjižnice Pazin. Program je osmišljen s ciljem poticanja ranog razvoja digitalnih i logičkih kompetencija među djecom te približavanja računalnog razmišljanja kroz igru, kreativnost i praktične aktivnosti.

Radionice su se održale tijekom listopada 2025. godine u prostoru Gradske knjižnice Pazin te u suradnji s odgojno-obrazovnim ustanovama u Pazinu. Kroz interaktivne aktivnosti s LEGO setovima djeca su imala priliku upoznati osnovne principe programerskog razmišljanja, rješavanja problema, timskog rada i kreativnog stvaranja. Program je bio namijenjen djeci vrtićke dobi, učenicima nižih razreda osnovne škole te djeci koja se prvi put susreću s konceptima

Radionice je vodio Sven Gerenčir, iskusni programer s dugogodišnjim iskustvom u STEM području, koji je strukturirano i metodološki prilagođeno vodio aktivnosti te omogućio djeci jasnu i razumljivu primjenu temeljnih koncepata računalnog razmišljanja.

2. Održani program i broj polaznika

U sklopu EU Code Week inicijative održane su tri radionice u prostoru Gradske knjižnice Pazin, u suradnji s Dječjim vrtićem Olga Ban Pazin i Osnovnom školom Vladimira Nazora Pazin. Radionice su bile namijenjene predškolskoj djeci i učenicima prvog razreda, a održane su u dva termina – u ponedjeljak i utorak 27. i 28.10. listopada 2025. godine.

Iako su u planu bilo održavanje dviju radionica, Knjižnica je zbog velikog interesa dodala dodatni termin radionice (27. listopada u 17 h).

U projektu je sudjelovalo ukupno 63 djece.

RADIONICA	BROJ POLAZNIKA
27.10.2025.	21
27.10.2025.	22
28.10.2025.	20

3. Uočena poboljšanja u kompetencijama djece

Tijekom radionica primijećeno je nekoliko pozitivnih promjena u razvoju ključnih kompetencija djece:

a) Razvoj logičkog mišljenja

Korištenjem LEGO kockica djeca su uvježbavala slijedove, prepoznavanje uzoraka i osnovne logičke strukture, što predstavlja rani oblik programerskog razmišljanja.

b) Kreativnost i problemsko rješavanje

Aktivnosti su poticale djecu da istražuju, testiraju i korigiraju svoje ideje. Zadaci su bili otvorenog tipa, omogućujući djeci da sama pronalaze različita rješenja.

c) Suradnja i komunikacija

Rad u parovima ili manjim grupama pridonio je razvoju socijalnih vještina, timskog rada i sposobnosti dogovaranja. Djeca su učila objasniti svoj postupak i slušati tuđe prijedloge.

d) Razvoj digitalne predpismenosti

Iako je naglasak bio na fizičkim LEGO elementima, djeca su učila temeljne koncepte koji prethode formalnom programiranju: slijed radnji, uzročnost, strukturno rješavanje problema i testiranje rješenja.

4. Inovacije i prilagodbe razvijene tijekom radionica

Projekt se istaknuo po inovativnom pristupu koji kombinira:

- LEGO kockice kao didaktički alat za uvod u programersko razmišljanje
- učenje kroz igru, posebno prilagođeno kognitivnom razvoju djece od 5 do 12 godina
- prilagodbu aktivnosti kako bi odgovarale uzrastu, kratkom rasponu pažnje i prirodnoj potrebi za pokretom

Tijekom provedbe voditelj radionice, programer Sven Gerenčir, prilagođavao je tempo i zadatke dinamici svake grupe. Kako su djeca pokazivala velik interes, radionice su bila nadograđivane dodatnim mikro-izazovima (npr. proširivanje konstrukcija, promjena redoslijeda blokova, simulacija „koda“ kroz pokret).

Ovaj pristup osigurao je maksimalnu angažiranost i uključenost djece, a istovremeno je omogućio fleksibilnost i individualizaciju učenja.

5. Naučene lekcije i preporuke

Provedba radionica dovela je do nekoliko korisnih zaključaka:

- Rad u manjim grupama pokazao se izrazito učinkovit jer omogućuje kvalitetniju interakciju i pruža voditelju priliku za individualni pristup svakom djetetu.
- Suradnja s vrtićem i osnovnom školom pokazala se ključnom za dobar odaziv te bi ju u budućnosti vrijedilo dodatno formalizirati kroz dugoročnije partnerstvo.
- Korištenje LEGO kockica kao didaktičkog medija pokazalo se vrlo korisnim, osobito za djecu bez prethodnog iskustva u programiranju, jer im omogućuje nenametljivo usvajanje logičkih koncepata i olakšava prvi kontakt s računalnim razmišljanjem.
- Interes sudionika upućuje na potrebu za nastavkom programa, uključujući unaprijeđene radionice za stariju djecu te dodatne termine u poslijepodnevnim satima.

- Kako bi se program u budućnosti još preciznije prilagodio potrebama djece i odgojno-obrazovnih partnera, preporučuje se uvođenje formalne evaluacije, primjerice kroz kratke upitnike za djecu i njihove odgojitelje ili učitelje

6. Diseminacija i angažman zajednice

Projekt je promoviran putem web-stranice Gradske knjižnice Pazin i partnerskih ustanova, čime je zajednica pravovremeno informirana o aktivnostima.

Link na članke objavljene na portalu **Kampanja**:
https://www.kampanja.net/obrazovanje/eu-code-week-u-gradskoj-knjiznici-pazin-prvi-koraci-u-svijet-programiranja-uz-lego/

https://www.kampanja.net/kultura/knjiznica-se-ukljucila-u-europsku-inicijativu-eu-code-week/

Najava programa na portalu **istarski.hr**:

https://istarski.hr/node/119229-hvalevrijedan-iskorak-pazinske-knjiznice-djeca-uce-programirati-uz-lego-kocke

Najava programa na portalu **IstraIN.hr**:
https://istrain.hr/ostalo/zanimljivosti/68fc8ca8b5036/eu-code-week-u-gradskoj-knjiznici-pazin-prvi-koraci-u-svijet-programiranja-uz-lego/vijest?utm_source=chatgpt.com

Projekt je spomenuo i portal **škole.hr**:
https://www.skole.hr/tri-projekta-iz-hrvatske-i-slovenije-nagradena-u-sklopu-eu-code-weeka/

Ostali linkovi:

https://gk-pazin.hr/my-first-code-prvi-koraci-u-svijet-programiranja-uz-lego/

https://www.facebook.com/gradskaknjiznica.pazin/photos/na%C5%A1-novi-projekt-my-first-code-prvi-koraci-u-svijet-programiranja-uz-lego-koji-j/1382831753849642/

https://www.istra24.hr/kultura/my-first-code-u-gradskoj-knjiznici-pazin-radionica-za-djecu-koja-zele-napraviti-svoje-prve-korake-u-svijetu-kodiranja

https://gk-pazin.hr/my-first-code-prvi-koraci-u-svijet-programiranja-uz-lego-3/

https://gk-pazin.hr/my-first-code-prvi-koraci-u-svijet-programiranja-uz-lego-3/

Suradnja s vrtićem i osnovnom školom rezultirala je velikim interesom roditelja, a pozitivne reakcije potaknule su planiranje dodatnih termina radionica.

Objave i fotografije sa radionica doprinijele su vidljivosti projekta, a interakcija na društvenim mrežama knjižnice pokazala je da je zajednica vrlo naklona programima koji potiču rani STEM interes.

7. Dokumentacija i fotografski materijali

Dio atmosfere s radionica dokumentiran je fotografijama objavljenima na drštvenim platformama knjižnice (Facebook i Instagram):

https://www.facebook.com/gradskaknjiznica.pazin/posts/1386748263457991?ref=embed_post

https://www.facebook.com/gradskaknjiznica.pazin/posts/1389618863170931?ref=embed_post

https://www.facebook.com/gradskaknjiznica.pazin/posts/1387917726674378?ref=embed_post

8. Zaključak

Program „My First Code“ pokazao se kao izuzetno uspješan uvod u svijet programiranja za najmlađe sudionike EU Code Weeka u Pazinu. Inovativna kombinacija LEGO kockica, igre i logike stvorila je motivirajuće i poticajno okruženje u kojem su djeca spontano usvajala temelje programerskog razmišljanja. Suradnja s lokalnim odgojno-obrazovnim ustanovama, dobra posjećenost i pozitivne reakcije ukazuju na važnost i potrebu nastavka ovakvih programa.

Dodatna vrijednost jest činjenica da LEGO kockice ostaju dostupne djeci i nakon završetka radionica, što im omogućuje nastavak igre, istraživanja i spontanog učenja u knjižničnom prostoru, čime se produbljuje učinak aktivnosti i potiče daljnji razvoj kreativnosti.