Developers in Vogue

Program Type
Coding bootcamp for women

Medium of Delivery
Online and classroom

Program Duration
3 months

Annual Participants
~60 (3 cohorts of ~20 over 1 year)

Organization Type
Not-for-profit

Year Established
2017

Average Fees per Participant
Free

Number of Alumni
~60

<D V/> DEVELOPERS IN VOGUE

Geographic Coverage

On ground presence limited to Accra, Ghana. Planning to expand across Africa.

COMPANY OVERVIEW

Developers in Vogue is a free, early-stage, intensive coding boot camp for women in Accra, Ghana. The three-month program provides participants with a blend of online and on-site learning. The company aims to help women in Ghana gain the necessary digital skills to secure jobs in the technology sector, while providing them with a community of support.

For more information, visit:
https://developersinvogue.org/

Mission Statement

DIV empowers African women to become leaders in STEM fields, and is creating a relevant community of amazing women who are passionate about using technology to revolutionize Africa and beyond.

Key Innovations

The DIV program has two distinguishing features:

1. Cultivation of a Network of Peers: Participants are encouraged to develop strong relationships with their peers that will endure after the program ends. The program is structured to foster community and engage students through team assignments and projects. It also hosts numerous public events, such as hackathons and guest-speaker seminars. DIV believes that a community of women is an essential missing piece of Ghana's digital skills training space and wants to help women excel in the technology sector.

2. Peer Learning: One of the in-person training activities is called "pair programming" because two participants share a workstation. The knowledge exchange that takes place through this setup has led to an improved quality of coding.

Program Overview

DIV is a three-month boot camp program with two months of online sessions and assignments and one month of on-site training in Accra. The program is geared towards women older than 16 and focuses on web and mobile app development, as well as data science.

Key features of the program include:

1. Intensive training (online and on-site)

2. Dedicated one-on-one mentorship from industry experts

3. Collaborative peer learning assignments

4. Exposure to internship and full-time job opportunities and career guidance

5. Interactive activities such as hackathons

6. A final project where students build a product prototype

Photo © Developers in Vogue
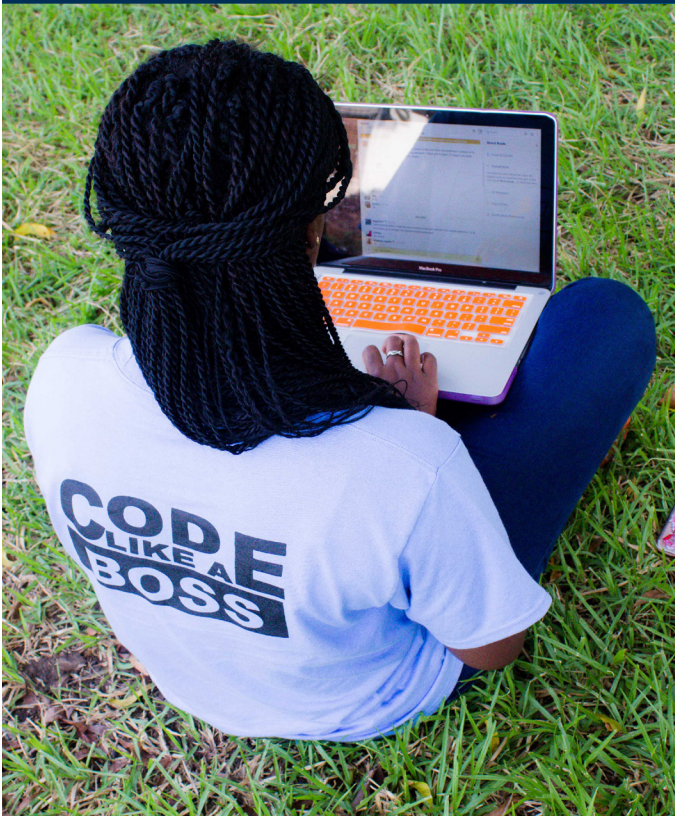
Program History

DIV was launched in 2017 by Ivy Barley and Maxwell Cofie, who were seeking to tackle gender disparity in Ghana's digital economy. They created the boot camp to provide aspiring women developers with the opportunity to hone their skills and receive support in finding jobs.

Types of Digital Skills Imparted

DIV focuses on teaching intermediate and advanced digital skills to help participants secure entry-level employment in the technology sector.

Technical skills taught include:

1. Core programming languages, including JavaScript and Python

2. Software and app development

3. Data science

4. Graphic design and digital marketing

DIV also teaches soft skills such as public speaking and presentation, team work, critical thinking, and networking.

Business Model

As a new start-up, DIV is still experimenting with its business model; it intends to introduce tuition fees in 2019. Its funding comes primarily through grants (55 percent), corporations (25 percent), and registration fees and collateral sales (20 percent). Applicants pay a registration fee of about $30.

Staff

DIV has four full-time and nine part-time staff, and works with over 20 volunteers. These staff members have backgrounds in computer science and technology, as well as prior professional experience.

Planned Growth Goals / Initiatives:

1. DIV's main goal is to increase the scale of the program through a boot camp that is almost entirely online. It will launch in January and serve up to 300 women in one cohort, versus the current 30 per cohort.

2. DIV also plans to introduce a tuition fee with flexible loans to increase the program's financial sustainability.

3. It hopes to drive growth through strategic partnerships that help secure local venues for in-person sessions, rely more on online delivery, and introduce revenue from tuition fees.

Replicability of the Model

The model is replicable but relies heavily on grants and a strong network of local corporations to help graduates find employment.

PARTICIPANT SOURCING AND SELECTION

Target Segment and Pipeline Development

DIV targets African women hoping to secure jobs or start their own technology companies in Africa. The company wants to ensure that more women enter STEM fields and receive the community support they need. DIV looks for applicants with little or no background in technology. The program seeks applicants who meet the following criteria:

1. Women who are over 16 (typically between 18 and 35 years old)

2. Willingness to commit to completing all program requirements including community service projects

3. Passionate about technology and career oriented

DIV offers the opportunity to learn advanced technical skills in a short time frame without tuition fees. In addition to learning technical skills, participants also benefit from the company's community support. The program provides students with extensive mentorship by industry participants, guest-speaker events, hackathons, resume and interview preparation, and internship and job opportunities. Seventy percent of employed alumni have found jobs through DIV's network. Alumni are encouraged to reach out to the organization for help in securing a job through its network. Alumni tend to stay in touch with their peers and mentors.

DIV finds most of its applicants through social media. The company broadcasts its online applications on Facebook, Instagram, and WhatsApp. This channel has proved successful for the organization, which receives roughly 400 applicants for each boot camp cohort, a 20:1 applicant-to-

seat ratio. The application is open for one month, followed by a three-month selection process before the program begins.

Application and Selection

Applicants are expected to complete an online application form with a series of essay questions about their reasons for applying. The application is open for one month.

Selection Process

Application reviews, interviews, and grading is conducted by four volunteer DIV alumni over the course of three months. The process takes place through the following steps:

1. **Online Application Review:** Initial screening of roughly 400 submitted applications

2. **Phone Interviews:** Thirty-minute phone interviews with 80 to 100 selected applicants to gauge their commitment level, passion for technology, and overall attitude

3. **Online Assignments:** Forty-five selected applicants are given weekly assignments for two months and are graded on performance and level of online peer interaction

4. **Final Interview:** Short phone interviews with 25 to 30 applicants to select the final 20

Key Challenges and Solutions

DIV has struggled to find a diverse pool of applicants. The program has taken the following steps to address this issue:

Women Outside of Accra: The program includes a one-month on-site course in Accra. Students must pay for their own accommodation. This limits its participants to residents of Accra or those from elsewhere who can afford accommodation in Accra for a month. DIV hopes to attract women from other cities in Ghana and the wider African continent by launching an almost entirely online version of the boot camp. This would require monthly or bi-monthly meetups instead of a full month on site.

Women Who Cannot Afford Laptops: Participants are required to bring a personal laptop to the on-site sessions. This discourages those who cannot afford their own laptop from applying. DIV is addressing this barrier to application by offering flexible loans without interest to pay for laptops. It has provided seven laptop loans so far.

PROGRAM EXPERIENCE

Program Experience

The program is three months long and participants are encouraged to earn while they learn. They are connected to freelance opportunities and internships in DIV's network, which they can later leverage to help them find jobs. Students are taught how to write resumes, network, and interview for jobs. They spend two initial months completing online lessons and assignments and then one month of intensive on-site training in Accra.

Students are assessed on their performance through frequent assignments, individual and group hackathons, and a final individual project. Students also are required to apply their learning through community service projects.

Participants are introduced to different fields in the technology space after which they select a career path that interests them. They are matched with a mentor in that field, who then provides at least an hour a week of in-person or remote career guidance throughout the program.

Guest speaker events allow participants to interact with well-known role models in the technology space. Past speakers include Vanessa Sanyuake, founder and chief executive of Girls Talk London, and Edem Kumodzi, a senior technical consultant at Andela.

Retention Approach

The two months of assignments prior to an applicant's selection is an effective way to determine their commitment to the program. It also ensures those selected are fast enough learners to keep up with the pace of the program. DIV follows up with each participant once a month in person or by phone to inquire about their experience. The company encourages continued participation by awarding points for event attendance. This culminates in a "developer of the month" prize. Active mentorship and community events also ensure that participants feel continuously engaged.

Instructors

In-person sessions are conducted by experienced industry participants who volunteer their time as teachers and curriculum developers in return for a small monthly stipend of around $150. There are no standard qualifications in place for teachers, but they serve as strong links to the labor market because they know the practical skills most needed by employers.

Mentors are experienced professionals in the technology space with backgrounds in front-end development, back-end development, user interface and user-experience design, graphic design, app development, cyber security, or data science.

PROGRAM IMPACT

Learning Goals

DIV aims to provide skills that are relevant to the technology job market. It focuses on intermediate and advanced digital skills such as:

1. Core programming languages, including Java and Python

2. Software and app development

3. Data science

4. Graphic design and digital marketing

DIV also teaches career-oriented soft skills. These include:

1. Presenting to an audience

2. Networking effectively

3. Working on a team

4. Critical thinking

Links to Industry:

DIV has established strong ties to the technology industry and has used them to bolster its program. These include:

1. A network of primarily Ghanaian companies in the technology sector that often provide internship and employment opportunities for participants

2. Mentors from the technology industry who provide practical guidance to participants

3. Teachers and other industry participants with an understanding of industry needs

4. Collaboration with local technology companies to conduct sessions and workshops (for example, DIV conducted a program in collaboration with iSpace and Python Ghana)

Impact

The program has had a significant impact on students, which is visible through their skill development and new jobs:

Tangible Skills: Participants have regular assignments to track progress. They must build a product prototype at the end of the boot camp, either an application or program, using the skills they have acquired. They are evaluated on the final product. There also are usually two hackathons during each boot camp, which allow for further monitoring of skills acquired.

Tangible Employment: Half of alumni—about 30 women—have secured employment within less than a year of completing the program. Seventy percent of those have found jobs using DIV's network.

Macro-level Impact: The program seeks to bridge the gender gap in digital skills. It has a small community of 60 alumni, but plans to add an additional 300 women in one cohort next year. This growth will be achieved through a near total online delivery of the program.

Employment Process

DIV provides career support to its participants throughout the program. These initiatives include:

1. Matching interested students with freelancing and internship opportunities to help them earn a salary alongside the program.

2. Mentorship from individuals in specific fields that are aligned to each student's career path goals. These mentors are usually experienced professionals who can share their own experiences and guide students through the job-seeking process.

3. Practical skills development, such as how to ace a technical interview, how to start a technology company, and how to write a strong resume.

4. Directing interested students to scholarship opportunities to study the latest technologies, such as artificial intelligence.

5. Access to DIV's network of local and international organizations to help secure a job.

DIV offers alumni support by connecting them to potential opportunities in their network. The program measures success through the alumni employment rate, which is 50 percent. Alumni have found jobs at companies, such as AgroCenta, Ampersand Technologies, Cavemen and QodeHub. Two recent alumni received offers from Microsoft, DIV's first international corporate partner, to work at its headquarters in Seattle.

Learner Experience
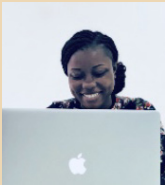
Abigail Edwin, **Developers in Vogue alumna**

- Abigail is 27 years old and is a 2018 alumni of the Developers in Vogue program
- Abigail holds a bachelor's degree in political science and prior to applying for DIV, worked at her family's food delivery business
- She did not have any experience in computer science, but was always interested in learning technical digital skills. This unfulfilled interest, combined with her desire to give back to her community, motivated her to apply
- Abigail learned about DIV through a Facebook post about an interview with Ivy Barley (founder of DIV). She was intrigued by the program's short duration and lack of tuition fees
- Abigail found that the selection process focused primarily on assessing passion for digital skills and commitment to the program. She was selected as a participant
- Abigail felt fully supported throughout the program. DIV helped her secure a freelance job during the program and later a job with AgroCenta, where she is helping to build an online marketplace for farmers in Ghana. Since completing DIV, she has also developed an application to help detect eye cataracts
- Abigail remains in touch with her peers and her mentor from the program

OPERATIONS

Program Evolution

The program has evolved significantly over three cohorts. The first cohort's program was designed to be more flexible in hours of work required and lower in intensity. However, engagement levels proved too low. The second and third cohort were much more time intensive.

DIV is trying to reduce intensity by introducing a boot camp in 2019 that is almost completely online and promotes self-learning. The program also has evolved to provide flexible loans for laptops.

Path to Scalability

DIV has grown through its social media presence on Facebook, WhatsApp, and Instagram platforms. It hopes to expand reach by creating a boot camp that is almost fully online and establishing strategic venue partnerships in other cities and countries. This also will enable DIV to strengthen its industry ties across the globe.

KEY PEOPLE

Ivy Barley
Cofounder of Developers in Vogue

Barley holds a bachelor's in actuarial science and a master's in mathematical statistics. She has worked as an educator and data analyst, and recently worked as a consultant on the German government's initiative to drive digital skills for women in Ghana. Barley is also Ghana's Women in Data Science Ambassador for Stanford University's Global Women in Data Science (WiDS) conference.

Barley cofounded Developers in Vogue in 2017.