1. Проделал кросс-компиляцию:

```
ildar-islamov@ildar-islamov-VMware-Virtual-Platform:~/labs/lab1$ cd ./for_tests/
ildar-islamov@ildar-islamov-VMware-Virtual-Platform:~/labs/lab1/for_tests$ ls
lab1.test_arm  lab1.test_arm64  lab1.test.c  lab1.test_x86  lab1.test_x86_64  script.sh  test.sh
```

2. Сам скрипт:

```
ildar-islamov@ildar-islamov-VMware-Virtual-Platform:~/labs/lab1/for_tests$ cat script.sh
#!/bin/bash

# x86_64 (64-bit Intel/AMD)
x86_64-linux-gnu-gcc -o lab1.test_x86_64 lab1.test.c -ldl

# ARM64 (AArch64)
aarch64-linux-gnu-gcc -o lab1.test_arm64 lab1.test.c -ldl

# ARM (32-bit)
arm-linux-gnueabihf-gcc -o lab1.test_arm lab1.test.c -ldl

# x86 (32-bit)
gcc -m32 -o lab1.test_x86 lab1.test.c -ldl
```

3. Тестовый файл на C:

```
ildar-islamov@ildar-islamov-VMware-Virtual-Platform:~/labs/lab1/for_tests$ cat lab1.test.c
#include <stdio.h>
#include <dlfcn.h>
#include <gnu/lib-names.h>

// Функция для демонстрации использования библиотек
void print_system_info() {
    #ifdef __x86_64__
        printf("Architecture: x86_64\n");
    #elif defined(__aarch64__)
        printf("Architecture: ARM64\n");
    #elif defined(__arm__)
        printf("Architecture: ARM\n");
    #elif defined(__i386__)
        printf("Architecture: x86\n");
    #else
        printf("Architecture: Unknown\n");
    #endif

    // Демонстрация использования системных библиотек
    void *handle;

    // Загрузка библиотек для разных архитектур
    handle = dlopen(LIBC_SO, RTLD_LAZY);
    if (handle) {
        printf("Loaded standard C library\n");
        dlclose(handle);
    }

    handle = dlopen("libm.so.6", RTLD_LAZY);
    if (handle) {
        printf("Loaded math library\n");
        dlclose(handle);
    }
}

int main() {
    print_system_info();
    return 0;
}
ildar-islamov@ildar-islamov-VMware-Virtual-Platform:~/labs/lab1/for_tests$
```

4. Вызов --help:

```
ildar-islamov@ildar-islamov-VMware-Virtual-Platform:~/labs/lab1$ ./lab1 --help
Reverse LDD wrapper (uses objdump/readelf)

Usage: lab1 [OPTIONS]

Options:
  -d, --directory <DIRECTORY>  Directory to scan (optional) [default: ./]
  -o, --output <OUTPUT>        Output file path (optional)
  -h, --help                   Print help
  -V, --version                Print version
ildar-islamov@ildar-islamov-VMware-Virtual-Platform:~/labs/lab1$
```

5. Работа приложения:

```
  -V, --version              Print version
ildar-islamov@ildar-islamov-VMware-Virtual-Platform:~/labs/lab1$ ./lab1 -d ./for_tests/ -o ./archs_tests.txt
[INFO] Scanning directory: ./for_tests/
[INFO] Scan complete. Found 4 valid ELF executables.
[INFO] Report saved to ./archs_tests.txt
ildar-islamov@ildar-islamov-VMware-Virtual-Platform:~/labs/lab1$
```

```
ildar-islamov@ildar-islamov-VMware-Virtual-Platform:~/labs/lab1$ cat archs_tests.txt
Report on dynamic used libraries
Generated by bldd-rust-wrapper
========================================
---------- aarch64 ----------
libc.so.6 (1 execs)
                ->./for_tests/lab1.test_arm64

---------- armv7 ----------
libc.so.6 (1 execs)
                ->./for_tests/lab1.test_arm

---------- i386 ----------
libc.so.6 (1 execs)
                ->./for_tests/lab1.test_x86

---------- i386:x86-64 ----------
libc.so.6 (1 execs)
                ->./for_tests/lab1.test_x86_64
```

6. Код приложения написан на rust(можно посмотреть в папке /lab1/src)