Grade 8 Computing

Unit 11 · A Project for Your Community

WORKSHEET

Full marks 29

Name _____ Class _____ Roll no. ____ Date _____ Marks _____ / 29

1 Key words [4]

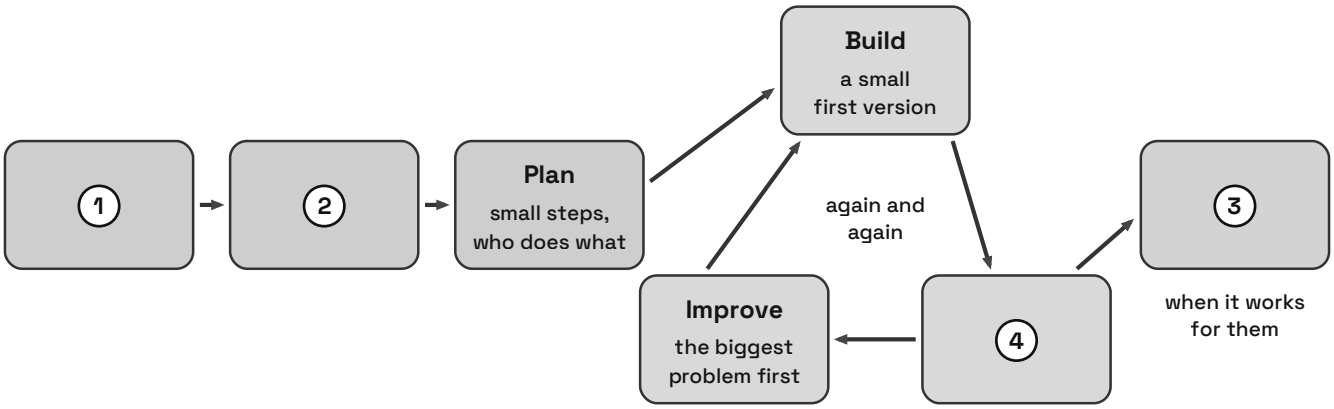
Fill in the blanks with words from the box. Two words in the box are not needed. Each blank carries 0.5 mark.

driver	findings table	inclusive collaboration	navigator	problem statement	product	project log	success check	team agreement	user

A person who will use what you make is a _____. One sentence saying who has the problem, what they need and why it matters is a _____. A test that shows whether a must is done, in words a user would understand, is a _____. Working so that every member of a team takes part and is heard, whatever their language, confidence or what they have at home, is _____. In pair programming, the _____ types, and the _____ reads every line, spots mistakes and plans the next step. What users did and said in testing is written in a _____, and a few lines each period on what the team did and decided are its _____.

2 Label the diagram [2]

The diagram shows the steps of a project for real users. Write what belongs in place of 1 to 4. Each carries 0.5 mark.



1. _____ 2. _____

3. _____ 4. _____

3 Multiple choice [5]

Choose the correct option for each of the following questions.

i. Which question is best to ask in an interview about a library? [1]

a. Would you use a library app?
b. Don't you think the library is hard to use?
c. What did you do the last time you couldn't find a book?
d. How many times a week will you use our finder?

ii. Which is a good **success check** for a notice page? **[1]**

a. The page looks nice.

b. The page uses CSS.

c. A grandparent can find the date of the next vaccination camp on a phone, in under a minute, without help.

d. The team likes the page.

iii. A team's chat group is on an app one member doesn't have. What is the problem? **[1]**

a. There is no problem, if the others agree.

b. That member is left out of the team's plans and decisions.

c. Chat apps are not allowed for projects.

d. The app might be slow.

iv. `"Phool" in "Shirishko Phool"` and `"phool" in "Shirishko Phool"`: what are they? **[1]**

a. both `True` **b.** `True`, then `False`

c. `False`, then `True` **d.** both `False`

v. Which of these is a **problem statement**? **[1]**

a. We will make a web page for the ward office.

b. People in Ward 5 who can't get to the office miss notices about vaccination camps and meetings, because the notices are only on the board outside.

c. The web page must have big text.

d. Our app will be the best in Nepal.

4 What does it print? [3]

This search ignores capitals and finds a word anywhere in a title. Write exactly what the program prints, in the box under it.

```
1  titles = ["Muna Madan", "Palpasa Cafe", "Karnali Blues",
2            "Seto Dharti", "Sumnima"]
3  target = "AR"
4  found = 0
5  for i in range(len(titles)):
6      if target.lower() in titles[i].lower():
7          print(titles[i])
8          found = found + 1
9  print(found, "found")
```

```
OUTPUT
```

5 Trace the program [4]

The library's notice board shows only how many books are late, and the total of the fines. Fill in the trace table: one row for each time round the loop, after the `if`.

```
days_late = [5, 0, 0, 14, 2]
late = 0
fines = 0
for d in days_late:
    if d > 0:
        late = late + 1
        fines = fines + d * 2
print(late, "books are late. Fines: Rs", fines)
```

d	late	fines

```
OUTPUT
```

6 Find and fix the bug [3]

Read the program, then answer.

A student types roll number 6 at the library desk.

```
names = ["Aarati", "Bikash", "Dawa", "Gita", "Hari"]
days_late = [0, 12, 0, 3, 30]
roll = int(input("Roll number: "))
i = roll - 1
if days_late[i] > 0:
    print(names[i] + ", your book is", days_late[i], "days late.")
else:
    print(names[i] + ", you have no late books.")
```

i. What happens, and why?

ii. Change the program so that it gives a sensible message for a roll number that isn't on the list.

7 Short answer [3]

Write a short answer to the following question.

A program chooses which class gets the computer lab each Friday by going through the classes in order of their names, starting from the top each term: Class A, then B, then C… Some terms have only a few Fridays. Is it fair? Suggest a fairer algorithm.

8 Write a program [3]

Write the program on the lines. Any program that does the job gets the marks.

A class's test marks are `marks = [72, 45, 88, 61, 31]`. Write a program for the notice board that prints the class average and how many students passed (35 or more), without anyone's name or mark.

9 Think [2]

Think, then answer.

Five students asked for a new book the library has only one copy of. The team sorted their names alphabetically and gave the book to each student in that order. Who gains, and who loses? How would you make it fair?

10 Activity: Interview a user (not marked)

Interview someone a small program or web page might help (a shopkeeper, the librarian, a grandparent). Ask permission first and say what it is for. Ask about real times in the past, not about an app. Don't write down their name.

My question	What they said	What I learned about their need